

# Rock Products

DEVOTED TO  
Concrete and Manufactured  
Building Materials

Volume XII.

CHICAGO, ILL., MARCH 22, 1913.

Number 9.

## CAROLINA PORTLAND CEMENT COMPANY

We are the largest distributors of Portland Cement, Lime Plaster, Fire-brick and General Building Material in the Southern States, and have stocks of Standard Brands at all of the Atlantic and Gulf Seaports, and at our interior mills and warehouses, for prompt and economical distribution to all Southern territory. Write for our delivered prices anywhere. Also Southern agents for the "Dehydratine" waterproofing material. "Universal," "Acme" and "Electroid" Brands Ready Roofing. Get our prices.

Charleston, S. C. Birmingham, Ala. Atlanta, Ga. New Orleans, La.

**DEXTER** Portland Cement  
THE NEW STANDARD

Sole Agents **SAMUEL H. FRENCH & CO.** Philadelphia



## UNION MINING COMPANY

Manufacturers of the Celebrated

**MOUNT SAVAGE**  
FIRE BRICK  
GOVERNMENT STANDARD

DEVOTE a special department to the manufacture of Brick particularly adapted both physically and chemically to

**Lime Kiln and  
Cement Kiln  
Construction**

Large stock carried. Prompt shipments made. Write for quotations on Standard and Special shapes, to

**UNION MINING CO.**  
Mount Savage, Md.  
CAPACITY, 80,000 PER DAY  
ESTABLISHED 1841



**Durability—Strength—Superiority**

We Show Herewith a Picture of the Home of

Our Capacity Is  
Very Large.



We Fill All Orders  
Promptly.

STRONGEST KEENE CEMENT KNOWN

AMERICAN KEENE CEMENT COMPANY, Sigurd, Utah



**CHICAGO BELTING COMPANY**  
PURE OAK TANNED LEATHER BELTING

**RELIANCE and SEA LION WATERPROOF**

The two brands of leather belting that represent the best in belt construction. Our catalog is yours for the asking.

CHICAGO BELTING CO., 113-125 N. Green Street, CHICAGO

Branches: New York, New Orleans, Portland, Ore., Los Angeles, Cal., Cleveland, Ohio.

Tannery, Niles, Mich.

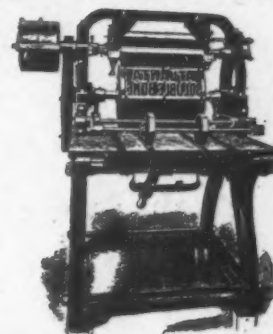


## KOEHLER BAG PRINTER

is not only the fastest bag printer on the market---but the best and cheapest as well.

Write to us today for full particulars and prices. Hundreds of them in daily use giving perfect satisfaction.

**The Henry L. Koehler Manufacturing Co.**  
410 W. Main Street, Louisville, Kentucky



**Phoenix Portland Cement** UNEXCELLED FOR ALL USES.  
Manufactured by  
**PHOENIX PORTLAND CEMENT CO.**  
NAZARETH, PA.

Sole Selling Agent, WILLIAM G. HARTMAN CEMENT CO.  
Real Estate Trust Building, PHILADELPHIA, PENNSYLVANIA.

**Ottawa Silica Co.'s Washed White Flint Sand**

Is used for sawing stone in more than a dozen states. Cuts more and lasts longer than any other sand on the market. Unexcelled for Roofing, Facing Cement Blocks, White Plaster, etc. Freight rates and prices on application.

**OTTAWA SILICA CO.**

Ottawa, Ill.

## The Ironton Portland Cement Co.

Manufacturers of the  
Celebrated Limestone Brand of Portland Cement

Used by the Railroads in Kentucky, Ohio, West Virginia, and Virginia during the past five years. Cement as finely ground as any on the market. Guaranteed to pass all the standard specifications.

Plant located at Ironton, O., within easy access to seven States, namely, Ohio, Indiana, Kentucky, West Virginia, Virginia, Tennessee and North Carolina.

Shipments via the N. & W. Ry., C. & O. Ry., C. H. & D. Ry., D. T. & I. Ry., or Ohio River.

Write for Prices

## The Ironton Portland Cement Co.

Ironton, Ohio



MILLS

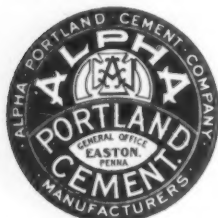
Montreal	Port Colborne
Hull	Shallow Lake
Belleville	Maribank
Lakefield	Winnipeg
Calgary	Exshaw

For Prices Any Where in  
CANADA

Write or Wire Our Nearest Sales Office

## Canada Cement Company LIMITED

Montreal - Toronto  
Winnipeg - Calgary



ONE GRADE—ONE BRAND

## Alpha Portland Cement

Best in the World for  
Sidewalks

Write for our Handsomely Illustrated Book. Sent Free.

General Offices: No. 7 Center Square, EASTON, PA.

—SALES OFFICES:—

The Over Bldg., PITTSBURGH.	Builders Exchange, BUFFALO.
Builders Exchange, BALTIMORE.	Board of Trade Bldg., BOSTON.
Harrison Building, PHILADELPHIA.	Hudson Terminal Bldg., N. Y.
National Bank Bldg., SAVANNAH, GA.	

## Northwestern Portland Cement



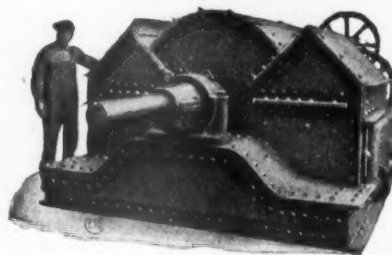
The Reliable Portland  
Cement

A Portland Cement  
for the

## NORTHWEST

NORTHWESTERN STATES PORTLAND CEMENT COMPANY  
MASON CITY, IOWA

## "PENNSYLVANIA" HAMMER CRUSHERS



For Pulverizing Lime-  
stone, Lime, Cement Rock,  
Marl, Shale, Etc.

Main Frame of steel, "Ball and Socket" Self aligning Bearings; forged Steel Shaft; Steel Wear Liners; Cage adjustable by hand wheel while Crusher is running. No other hammer Crusher has such a big Safety Factor.

PENNSYLVANIA CRUSHER CO.  
Philadelphia  
New York Pittsburgh

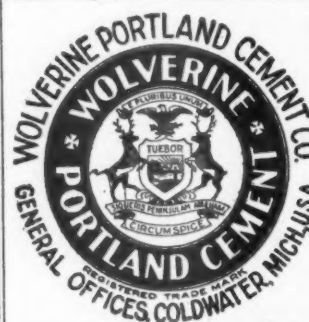


## Absolute Uniformity

In every sack on which is the Lehigh Label means a uniformly light color and uniformly high tensile strength in every job on which Lehigh is used. The fact that the same process is maintained throughout our eleven mills, in selecting, proportioning and testing our product from the first to the last stage of its manufacture, insures this uniformity. For the highest quality of concrete work use the most uniform cement, Lehigh.

## Lehigh Portland Cement Co.

Allentown, Pa. Chicago, Ill.



## "WOLVERINE"

The Alright Cement

MADE RIGHT SOLD RIGHT  
WORKS RIGHT  
WEARS RIGHT

The Best is None Too Good For You.  
Insist Upon.

## "WOLVERINE"

Write for Booklet and Quotations.  
Factories at Coldwater and Quincy, Mich.  
Capacity 3500 Daily.

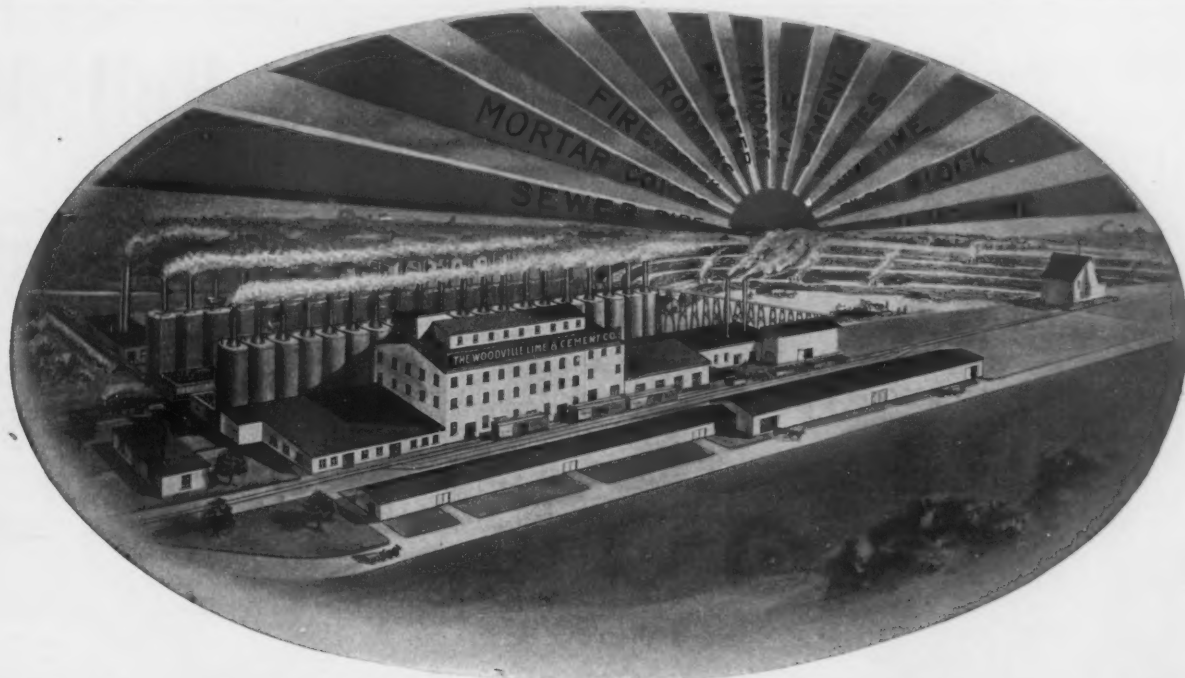
WOLVERINE PORTLAND CEMENT COMPANY  
W. E. COBEAN, Sales Agent,  
Coldwater, Michigan  
Main Office, Coldwater, Mich.











## "THE BEST UNDER THE SUN"

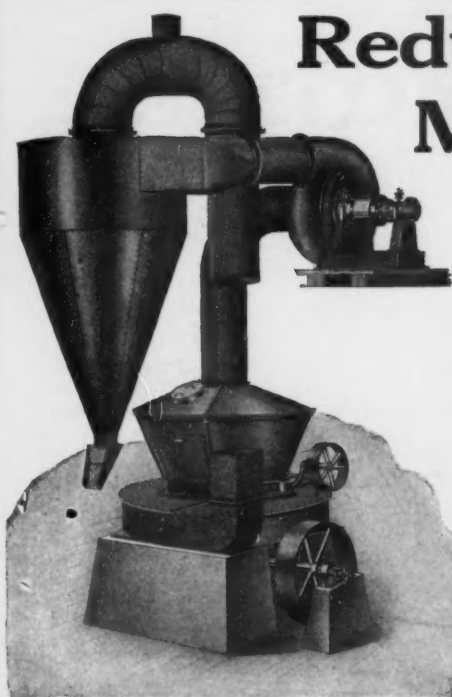
Manufacturers of

*White Enamel Finish Hydrated Lime*

*White Lily Finish Hydrated Lime*

EVERYTHING IN  
BUILDING MATERIALS

The Woodville Lime & Cement Co., Toledo, O.



## Reduce the Cost of Making Gypsum Plaster

If this announcement reaches the eye of any hard wall plaster manufacturer—or the superintendent of such a plant—now using Buhr Stones for grinding gypsum rock, we ask that he drop us a line for information as to how the cost of making gypsum plaster can be reduced and a better grade of plaster produced.

The indisputable evidence we furnish will convince any interested person of the great advantages to be derived from Raymondizing a plaster mill.

The manufacturer will be interested in having pointed out the way to bigger dividends for his stockholders.

The superintendent will be interested in being shown how he can be of greater service to his employers. Some of the biggest men in the Gypsum industry have been convinced by us. Give us the opportunity to convince you.

Tell us the conditions in your plant and let us analyze them in our endeavor to improve them.

Write for our "Book on Pulverizing"—It embodies the most advanced ideas in grinding Engineering—being the result of 25 years' study; involving an expenditure of hundreds of thousands of dollars in experiments, inventions and improvements in pulverizing processes in all industries.

After analyzing conditions in your plant we will guarantee that an installation of a Raymond Pulverizing System will produce definite results or we agree to remove the installation at our expense.

### Raymond Bros. Impact Pulverizer Co.

517 Laflin Street, CHICAGO, ILL.

#### PLEASE CUT OUT THIS REMINDER TO WRITE

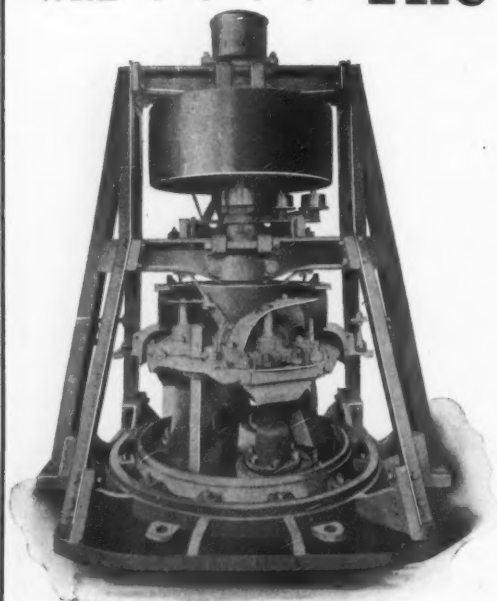
Raymond Bros. Impact  
Pulverizer Company,  
517 Laflin Street, Chicago

Dear Sirs: Please send us the Book explaining your modern money-saving method of Pulverizing and Air Separation. (2)

Tell 'em you saw it in ROCK PRODUCTS

Get Acquainted  
With . . . .

# The Bradley Three Roll Mill



Open View

It is as successful when used for pulverizing limestone for agricultural purposes as the Giant Griffin Mill is when used as a cement material pulverizer. It is a fine pulverizer and meets all requirements.

## The Farmer is Demanding a Finely Ground Product

This finely powdered finished product can be obtained very economically by using the Bradley Three Roll Mill.

**CAPACITY:**—6 to 10 tons per hour.

**H. P.:**—35 to 45—depending on character of material.

**UPKEEP:**—Less than 1c per ton.

**FINENESS:**—Necessary fineness can be obtained without use of auxiliary screens.

*Send for Descriptive Catalog No. 42.*

# Bradley Pulverizer Company

Boston

::

London

::

Berlin

# INDUSTRIAL LOCOMOTIVES



Light locomotives for Contractors and switching around industrial plants must be just as carefully designed and constructed as larger locomotives.

We have spent a great deal of time and money in developing our light locomotives. The designs have been carefully considered, and the locomotives are as good as they can be made. Every bit of material is carefully selected and tested.

Remember that we carry interchangeable repair parts in stock for immediate shipment.

## AMERICAN LOCOMOTIVE COMPANY

30 CHURCH STREET, NEW YORK

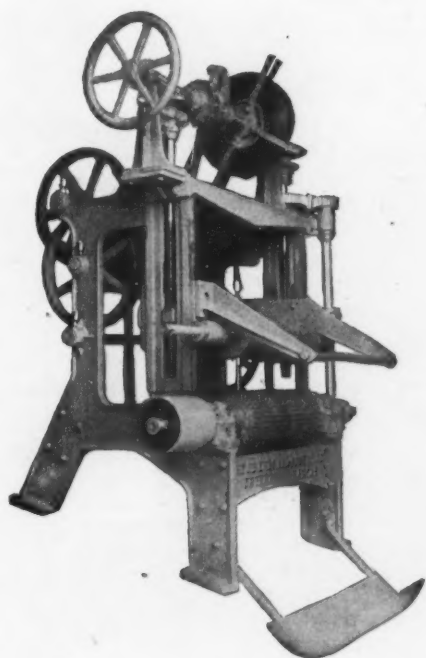
McCormick Building, Chicago

Dominion Express Building, Montreal, Canada

Standard Supply and Equipment Company, 1710 Market Street, Philadelphia, Pa.

N. B. Livermore & Company, Los Angeles; San Francisco; Seattle; Portland, Oregon

Tell 'em you saw it in ROCK PRODUCTS



## Points of Interest Concerning The Ehrsam Wood Fibre Machine

The log feeds itself to the saw. As the log decreases in diameter the Speed of the log and of the feed **INCREASES AUTOMATICALLY**.

In other words, the Peripheral Speed remains constant.

The feed of the log to the saw is in direct proportion to the speed of the log. This automatic uniformity of feed **INSURES UNIFORMITY** of **FINE-NESS** in the **PRODUCT**.

No frictional devices are used, none being necessary.

All the working parts are planed. All of the gears are cut from solid steel. All of the parts are interchangeable and numbered, so that duplicate parts can be quickly obtained and easily put in position.

The Saw mandril is extra heavy and made of the best crucible steel.

The journals are chain oiling. No Machine can be more substantially built. Write for full information.

J. B. Ehrsam & Sons, Enterprise, Kans.

Gentlemen:—Some time ago I received a letter from you asking how the wood fibre machine you shipped us is doing. Will say it is the best I ever used. In regard to any suggestions I could make as to how it might be improved, will say that I can make none, as it is O. K.

Yours truly,

SOUTHWEST CEMENT PLASTER CO.

Okeene, Okla., June 14, 1911.

Frank Dodge, Sup't.

Manufacturers of Jaw and Rotary Crushers for Gypsum, Vibrating Screens,  
Hair Pickers, Wood Fibre Machines, Calcining Kettles,  
Plaster Mixers, Power Transmission

## The Enterprise Vertical Burr Mill

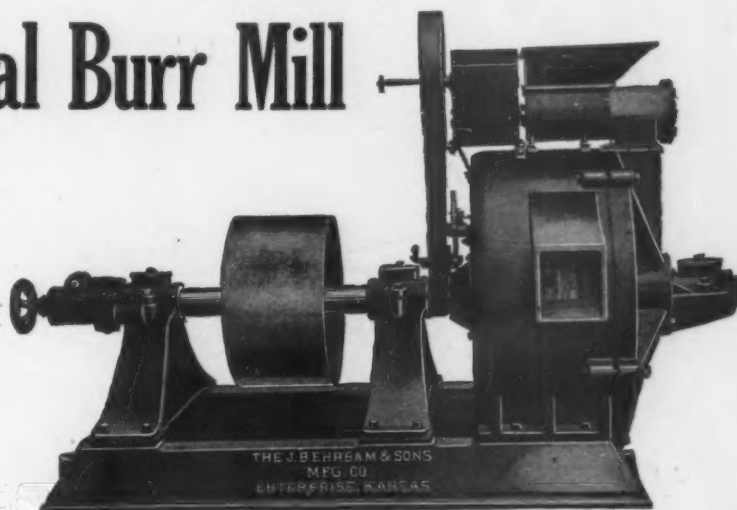
is especially designed for grinding gypsum, limestone, coal, coke, paint, rock, foundry facing, carbon, salt, and other similar substances.

It is **STRONG** and **DURABLY** built.

Has **INTERCHANGEABLE STONES**, which can be easily removed for dressing and replaced.

Is provided with our **POSITIVE CONTROLLABLE FEEDER**, which feeds an absolutely uniform stream into the mill at the required capacity.

**MANY OTHER  
ADVANTAGES.**



## The J. B. Ehrsam & Sons Mfg. Co.

Designers and Builders of

Complete Equipment for Plaster Mills

**ENTERPRISE, KANSAS, U. S. A.**

Tell 'em you saw it in **ROCK PRODUCTS**



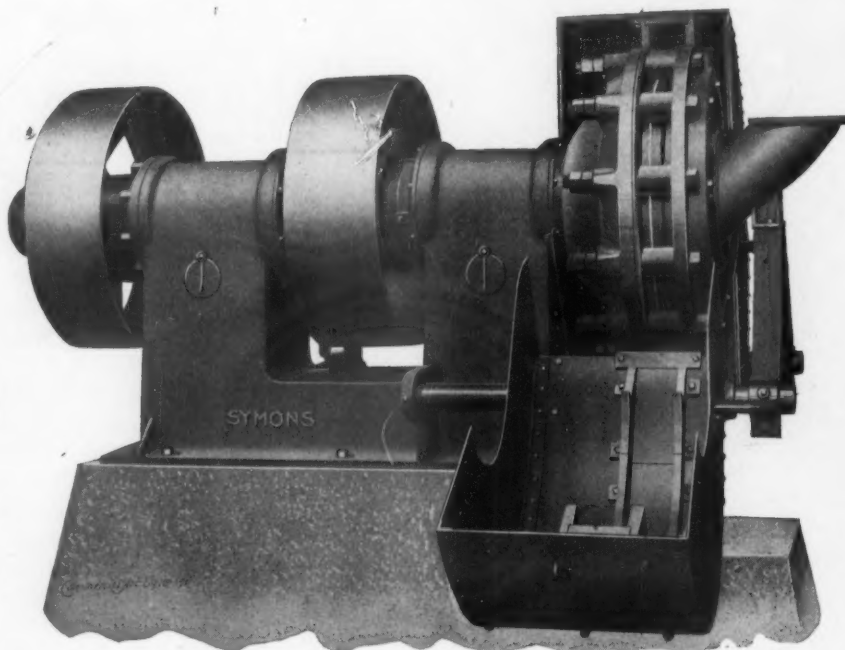
# Symons Disc Crushers

**are winning repeat  
orders**

In trap rock, granite and limestone quarries. In well known mines in many parts of the world.

Where CAPACITY and DURABILITY count.

58 Disc Crushers are reducing hard boulders in large gravel plants.

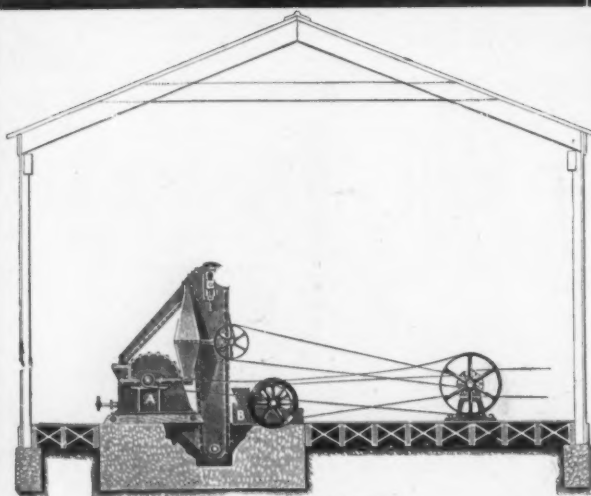


ADDRESS

**SYMONS BROTHERS COMPANY**

**605 Majestic Building**

**MILWAUKEE, WIS.**



Stationary Plant

## Reclaim Your Waste Product

**GRIND YOUR LIMESTONE SCREENINGS  
AND MAKE LIMESTONE FERTILIZER**

What is Now a Dead Loss to Some Quarrymen  
Can Be Turned Into Good Profits

WE FURNISH COMPLETE PLANTS OF ANY CAPACITY DESIRED

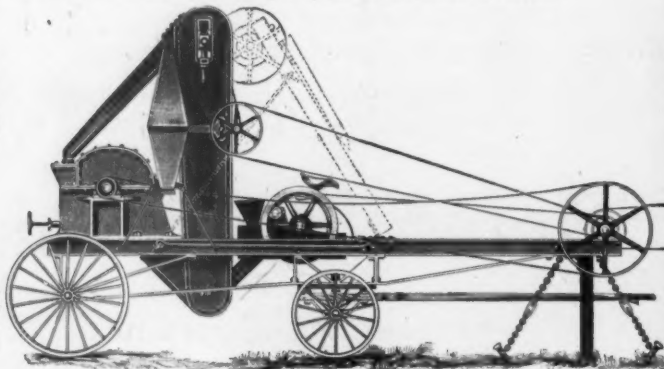
Manufactured and Licensed under 87 Separate and Distinct Patents

We now have over 50 plants in operation

BULLETIN NO. 4 EXPLAINS THE  
PROPOSITION

**The Williams Pat. Crusher &  
Pulv. Co.**

ST. LOUIS 2705 N. Broadway  
CHICAGO: Old Colony Bldg.  
SAN FRANCISCO: 428 Monadnock Bldg.



Portable Plant

Tell 'em you saw it in ROCK PRODUCTS



## AUSTIN GYRATORY CRUSHERS

Made in Eight Sizes

50 to 5000 Tons Per Day

Plans and Specifications submitted and expert advice free on any problems involving rock-crushing or earth-handling.

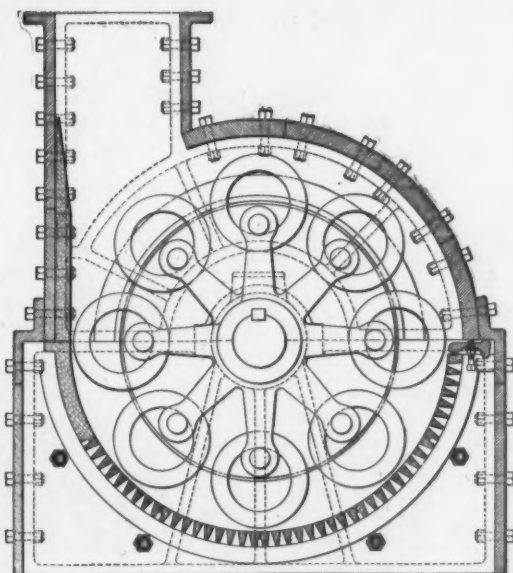
### AUSTIN MANUFACTURING CO.

CHICAGO

New York Office: 50 CHURCH STREET

Canadian Agents: MUSSENS, Ltd., Montreal

We manufacture:—Road and Elevating Graders, Scarifiers, Road Rollers, Quarry Cars, Dump Wagons, Stone Spreaders, Street Cleaning Machinery.



Made in Six Sizes.

Guaranteed—30 Days' Test.

Write for Particulars.

## THE BEST IS THE CHEAPEST

AMERICAN PULVERIZER CO.

East St. Louis, Ill.

Bowling Green, Ohio, Jan. 18, 1912.

GENTLEMEN: I had an opportunity a few days ago to inspect our No. 18 American Ring Pulverizer which I purchased from you in June, 1910.

The inspection recalled my promise to inform you after the end of each season's run as to the ability of the machine and cost of maintenance.

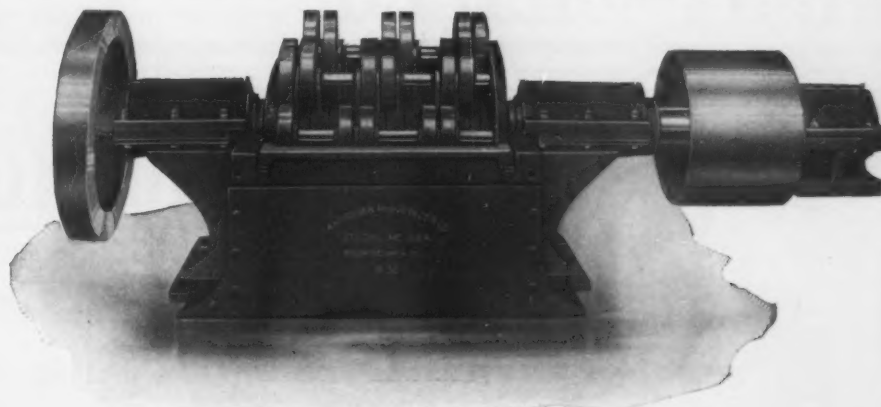
Would say that we have operated the machine daily, and until the close of this season, Dec. 1st, and have to report that we have not been put to any cost for renewals or repairs to date for either rings or concaves, and that the machine has complied with your guarantee as to tonnage and fine grinding.

The rings with the exception of 4 or 5 will do for this year, 1912.

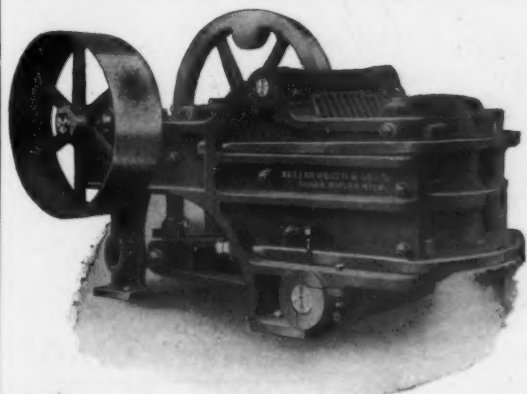
I am well satisfied that I made no mistake when I decided on your machine. Some of my competitors have other makes of grinders and they have surely had their troubles.

Yours truly,

MERCER STONE CO.



AMERICAN PULVERIZER COMPANY : EAST ST. LOUIS, ILLINOIS



Nippers—17 x 19", 18 x 26", 20 x 30", 24 x 36" and 26 x 42".

## Jaw and Rotary CRUSHERS

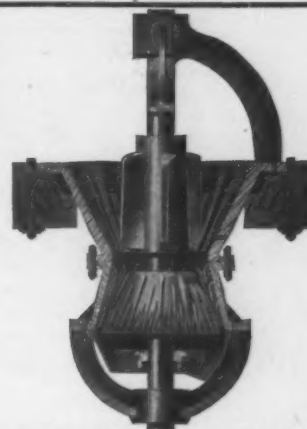
For all Rocks and Ores Softer than Granite

GYPSUM MACHINERY—We design modern Plaster Mills and make all necessary Machinery, including Kettles, Nippers, Crackers, Buhrs, Screens, Elevators, Shafting, etc.

Special Crusher-Grinders for Lime

### Butterworth & Lowe

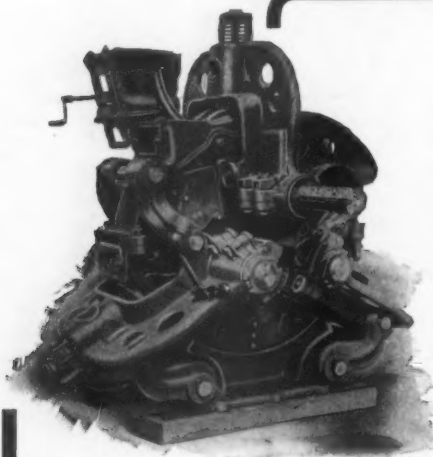
17 Huron Street, Grand Rapids, Mich.



Crackers—6 sizes—many variations.

Tell 'em you saw it in ROCK PRODUCTS





# MAXECON

Means MAXimum of ECONomy

Years of experience with the assistance of our hundreds of customers has found THE SOLUTION OF GRINDING HARD MATERIALS. The MAXECON PULVERIZER combines highest EFFICIENCY, greatest DURABILITY and assured RELIABILITY, Uses the LEAST HORSE POWER per capacity. Embodies the features of our Kent Mill with improvements that make it MAXECON.

**WE DO NOT CLAIM ALL of the CREDIT for this achievement**

We have enjoyed the valuable suggestions of the engineers of the Universal Portland Cement Co. (U. S. Steel Corp.), Sandusky P. C. Co., Chicago Portland C. Co., Marquette Cement Mfg. Co., Western P. C. Co., Cowham Engineering Co., Ironton P. C. Co., Alpena P. C. Co., Castalia P. C. Co., Pennsylvania P. C. Co., and many other patrons.

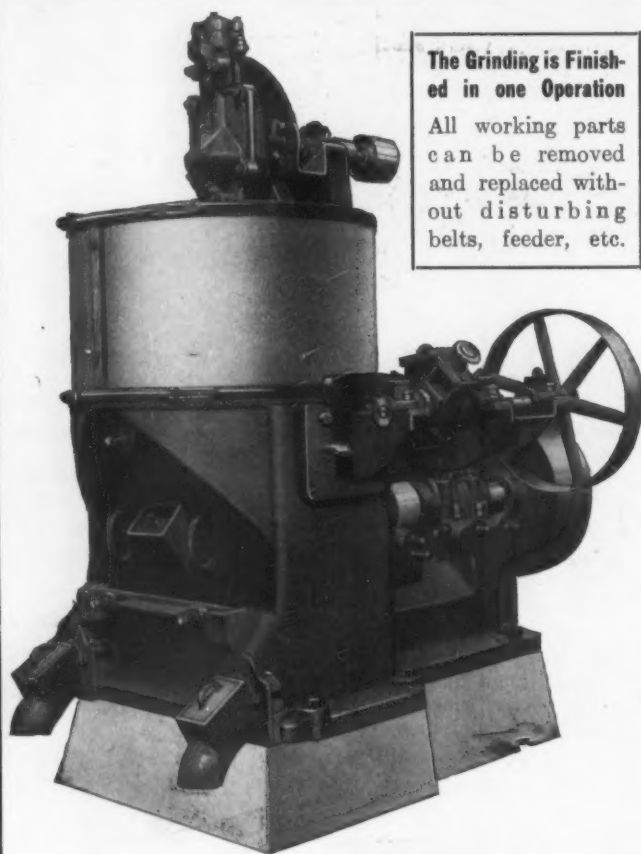
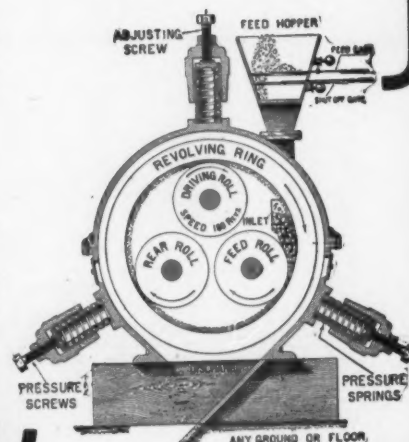
## THE RING WOBBLER

The FREE WOBBLING POUNDING RING instantly and automatically ADAPTS its position to the variations of work.

Its GRINDING ACTION is DIFFERENT than any other; besides the STRAIGHT rolling action of the rolls, the SIDE to SIDE motion of the ring makes the material subject to TWO crushing forces and DOUBLE OUTPUT results.

## KENT MILL CO.

10 RAPELYE ST., BOROUGH OF BROOKLYN, N. Y. CITY  
LONDON, W. C., 31 HIGH HOLBORN  
CHARLOTTENBURG 5, WINDSCHEID STRASSE 31, BERLIN



The Grinding is Finished in one Operation

All working parts can be removed and replaced without disturbing belts, feeder, etc.

## BONNOT PULVERIZER

**Grinds and Screens Limestone, Raw Lime and Hydrated Lime**

**Does it at One Operation. Gives You Any Desired Fineness**

GRINDING LIME IS LARGELY A SCREENING PROPOSITION. THE BONNOT PULVERIZER HAS THE LARGEST SCREENING SURFACE AND CONSEQUENTLY THE GREATEST CAPACITY.

NO OTHER MACHINE LIKE IT IN THE ACCESSIBILITY OF SCREEN AND GRINDING PARTS.

No. 4 Catalog Explains These Advantages

## THE BONNOT COMPANY

909 N. Y. Life Bldg.  
KANSAS CITY, MO.

**CANTON, OHIO**

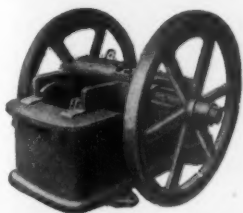
Tell 'em you saw it in ROCK PRODUCTS



## TISCO MANGANESE STEEL CASTINGS

FOR SEVERE SERVICE

TAYLOR-WHARTON IRON & STEEL CO.  
HIGH BRIDGE, NEW JERSEY



Lewistown Foundry & Machine Co.  
LEWISTOWN, PA.

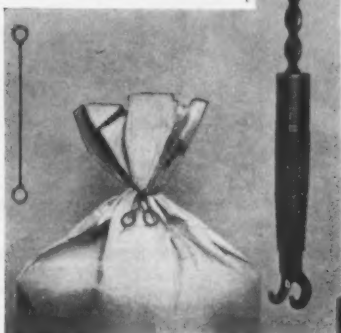
Builders of heavy duty crushers and glass sand machinery. Glass sand plants equipped complete.

WRITE FOR PRICES AND CATALOG.

## Wire Ties Give Absolute Security

to the  
Bags

Simple



Tying  
Tools  
Loaned  
for  
Thirty  
Days  
Free  
Trial

Rapid

No sore hands. No skilled labor.  
Untied with thumb and finger.  
No cut bags.

## The Curry Bag Tyer

No experiment. Two and one-half years' service in hundreds of plants.

Catalog E and Prices

CLIFFORD L. MILLER & CO. SOLE AGENTS  
110 E. 234 St., NEW YORK

We have begun suit against a maker and seller of a similar tool and are prepared to enforce our rights against all infringements.

## Breaker Shafts

### Crystallization

is the cause of the breaking of most crusher shafts and is the result of severe, continued and frequent shocks.

To prevent this trouble we have developed special "anti-fatigue" steel shafts which are oil tempered and heat treated.

These shafts are forged in our own shops which contain special equipment for the purpose, including one of the most powerful hydraulic presses ever built, the use of which assures a homogeneous forging.

These shafts are slow to show crystallization under the severest crushing conditions and will outlast any shaft ever before manufactured.

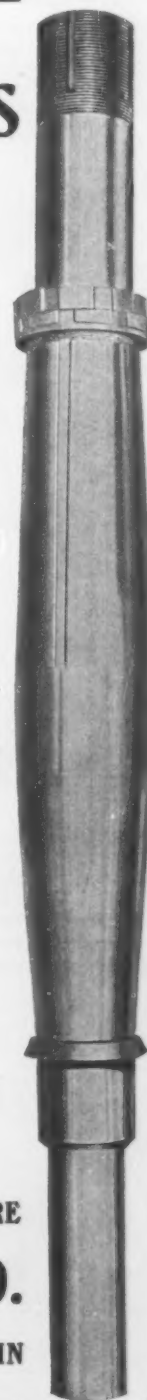
The greatly increased length of life of these shafts make them much more economical than the ordinary shaft even at the higher first cost.

For

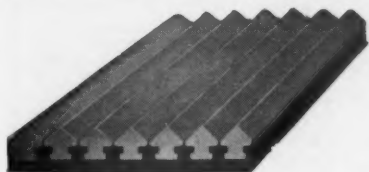
TRAP ROCK GRANITE IRON ORE

**ALLIS-CHALMERS CO.**

MILWAUKEE WISCONSIN



## A Tempered Steel Jaw Plate for Blake Type Crushers



Adamantine Tempered Steel Crusher Jaw Plate  
Patented March 31, 1908

The "Adamantine" Tempered Steel Jaw Plate for Blake Crushers is composed of Forged and Rolled Chrome Steel Bars, cast-welded and also mechanically interlocked into a backing of tough steel—and the wearing face is tempered to extreme hardness. We are equipped to supply both corrugated and smooth face plates for all sizes and makes of Blake Crushers.

This method of cast-welding forged and tempered steel bars into a mild and tough Steel Backing, is adapted also to the construction of Cone Heads for Gyratory Crushers, Segments for Corrugated Rolls, etc., etc.

Our products in this line are sold with our special guarantee that they *will wear longer, give better satisfaction and, at our price, prove more economical than any others now on the market.*

—Send for Descriptive Pamphlet—

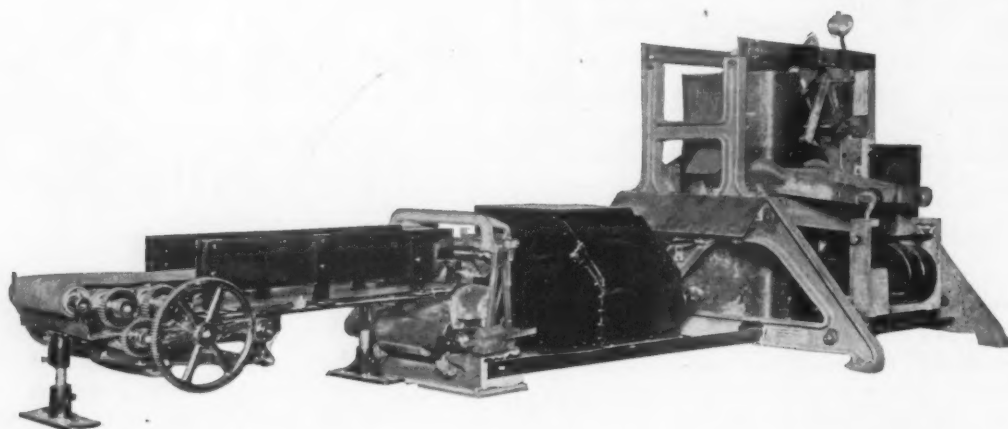
Represented by

J. F. Spellman, First National Bank Building, Denver, Colo.

George W. Myers, Kohl Bldg., San Francisco, Cal.

**CHROME STEEL WORKS**  
CHROME, N.J., U.S.A.

Tell 'em you saw it in ROCK PRODUCTS



Cement of the highest quality is only made by the exact required proportions of

## **CLINKER AND GYPSUM**

Your chemist, with this machine, will give the desired result

### **AUTOMATIC WEIGHING MACHINE COMPANY**

134 to 140 Commerce Street, NEWARK, N. J., U. S. A.  
439 Pierce Building, - ST. LOUIS, MO., U. S. A.

## **OUR MOTTO—"QUALITY and SERVICE"**

(Prices Always Right)

---

---

WIRE, MAIL OR PHONE OR-  
DERS TO NEAREST MILL

---

---

## **The National Retarder Co.**

SUCCESSORS TO

The Chemical Stucco Retarder Co.  
Webster City, Iowa

The Ohio Retarder Co.  
Port Clinton, Ohio

The Binns Stucco Retarder Co.  
Uhrichsville, Ohio

MILLS AT

**Webster City, Iowa**

**Port Clinton, Ohio**

**Branch Office, Toledo, Ohio**

Tell 'em you saw it in ROCK PRODUCTS



This is The Man That Made

## Bay State Brick and Cement Coating

famous and it in turn has made the  
name

**Wadsworth, Howland & Co.**  
Incorporated

known wherever a coating for concrete  
stucco or brick is used

He's the trade mark not only of  
the best concrete, stucco or brick coat-  
ing in the market but of the **WHOLE  
BAY STATE** line of dependable  
paints, varnishes, enamels and stains  
that stand weather and wear.

Ask your dealer for them. If he  
cannot supply you write us for booklet  
J. that tells about the **BAY STATE**  
line.

**WADSWORTH, HOWLAND & CO., Inc.**

Paint and Varnish Makers and Lead Corroders,  
82-84 Washington St.,  
Boston, Mass.

New York Office, 156 Fifth Avenue



L. C. Smith Bldg., Seattle, Wash.

**I**N this modern building about 300,000 square  
feet of Triangle Mesh Concrete Reinforcement  
were used.

Triangle Mesh Concrete Reinforcement is made  
from Cold Drawn Steel Wire. Tensile strength  
85,000 pounds per square inch. Furnished in rolls  
of 150, 200 and 300 feet.

Chicago New York Worcester Cleveland Pittsburgh Denver

Tell 'em you saw it in **ROCK PRODUCTS**



## Quick Lime in Cold Weather

Many contractors prefer quick lime in the winter months. It slakes readily. It is unnecessary to heat the water or dry out the sand.

This is the time for dealers to make arrangements WITH US for their supply.

MITCHELL LIME combines all the good qualities desired by contractors.

It slakes fast;  
It yields more putty;  
It lays more brick;  
It spreads easy;  
It makes the strongest mortar.

Your orders will be taken care of promptly. Two plants and two railroads give quick service.

### Mitchell Lime Company

528 Peoples Gas Building  
CHICAGO, ILL.

Works:  
Mitchell, Indiana



The  
National  
Lime &  
Stone Co.  
CAREY, OHIO

## Waste Means Loss of Money

WASTE means that you are reaching down into your pocket and meeting leaks that should not exist. For more than seven years we have been expounding the merits of

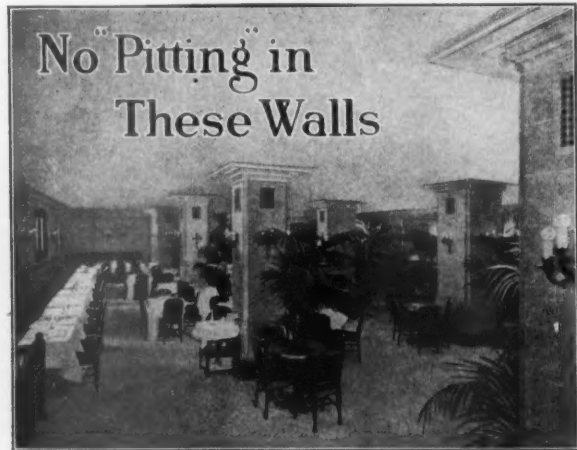
### Monarch Hydrated Lime

As a result, thousands of contractors will use no other. They have learned by experience that it more closely approaches perfection than any other lime, because there is absolutely no waste.

They know that it requires no screening.

That it takes more sand; gauges with one-third less plaster and spreads farther and easier than lump lime.

These are features that are causing thousands to use Monarch Hydrated Lime. Are you one of this number?



THE CAFE HOTEL, RECTOR, NEW YORK CITY

### TIGER BRAND White Rock Finish was used throughout this famous hotel.

Dealers who handle this finish are getting business like this every day. It not only means large orders to them but they are never troubled by complaints from the customers who use it.

This material is a straight hydrated lime made of lime stone from the famous White Rock District. It is thoroughly and scientifically hydrated and will not "pit," "pop" or "blister" in the walls.

It can be safely stored as it will not break the packages or burn and it will not deteriorate no matter how long it is kept.

TIGER BRAND



On Every Sack

Architects are specifying this material in your territory today. Write us for our dealer's proposition and get your share of this business.

The Kelley Island Lime & Transport Co.  
Cleveland, Ohio

## INCOMPARABLE

("Twas born with a reputation)



Moore's  
Finishing  
Lime has  
been Standard

Nearly  
60 years  
—and is  
so this day

### "WHITEKOTE IS THE RIGHT COAT"

Because of its perfection and  
Because of our sale policy—

**"ONE DEALER ONLY"**  
IN EACH DISTRICT

Tell 'em you saw it in ROCK PRODUCTS

# The Ohio and Western Lime Company

WORKS AT  
Huntington, Indiana  
Marion, O.  
Gibsonburg, Ohio  
Festonia, Ohio  
Sugar Ridge, Ohio  
Tiffin, Ohio  
Genoa, O.  
Limestone, Ohio  
Lime City, Ohio  
Portage, Ohio  
Lucky, Ohio  
Bedford, Ind.

MANUFACTURERS OF AND WHOLESALE DEALERS IN

Ohio and Indiana White Finishing Lime, Ground  
Lime, Lump Lime, Fertilizer Lime, Hydrate  
Lime, Cement, Plaster, Hair, Etc., Etc.

Capacity  
8000 Barrels  
Per Day

MAIN OFFICE: Huntington, Ind. Branch Office: Marion, Ohio.



## BANNER HYDRATE LIME

That Made Gibsonburg, Ohio, FAMOUS

MANUFACTURED BY THE

NATIONAL MORTAR & SUPPLY CO.  
PITTSBURG :: :: PENNSYLVANIA

## CROWN HYDRATE

HIGH CALCIUM HYDRATED LIME

At present prices you can waterproof, improve the color and strengthen the texture of all cement construction and actually save money because the Hydrate replaces the same amount of cement (15 to 25%).

Kritzer Vacuum Process

MARBLEHEAD LIME COMPANY

KANSAS CITY

CHICAGO

"If It Is Lime  
We Make It"

## Dealers, Attention!

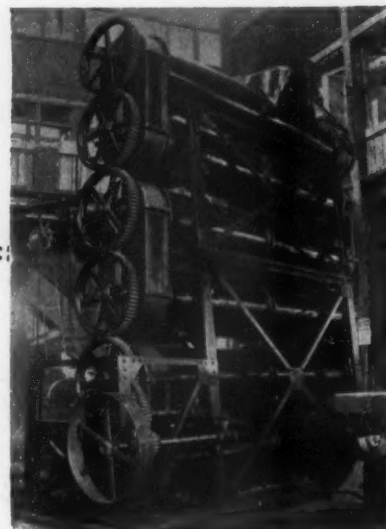
We manufacture the **Strongest Lime** in Ohio. The reason! Our Lime Stone is of that quality. We can ship straight or mixed cars of bulk, barrels, Mason Hydrate, Lime Flour White Finishing Hydrate, also Clover Grower for improving the soil. Write or wire for prices.

Scioto Lime and Stone Company  
Delaware . . . . . Ohio

Tell 'em you saw it in ROCK PRODUCTS

# HYDRATED LIME

## Its Marvelous Increase In Consumption



KRITZER CONTINUOUS PROCESS

### Are You Meeting the Increasing Demand for Hydrated Lime?

There is nothing forced or unnatural about the growing popularity of this product. It is a natural growth resulting from a widespread awakening to the advantages of Hydrated Lime for a variety of uses—as waterproofing for Concrete, in wall plaster, and in almost every case where lime is called for. In hydrated form it is weatherproof, more easily handled, and better adapted to modern methods, both of commerce and construction. A continued growth of the demand may therefore be expected.

### The Kritzer Way

insures a product which will hold a continued place for itself on the market. We install plants complete, designed by our own expert engineers to meet your local conditions and turn out a uniform grade of Hydrated Lime of the highest standard, and with the greatest economy in cost of production. The Kritzer Continuous Hydrator, and the accessories installed with it, are the recognized standards in this line.

#### The Kritzer Service

Any lime can be successfully hydrated by our process; but whether your lime can be hydrated and successfully marketed is another question. We study your proposition and the possibilities of its commercial success, and advise you accordingly. Our nearly ten years' experience in the business is a valuable assistance in this. Ours is not a mail order proposition. We investigate our customers' proposed plant thoroughly before we will enter into a contract with them. We turn down more prospects than we advise to go into the business. We can't afford to have any failures. Our customers' success is our success.

WRITE TO US

## THE KRITZER COMPANY

Chicago, Ill.

Tell 'em you saw it in ROCK PRODUCTS



**Machinery  
for Elevating  
and Conveying  
Materials**

**WELLER-MADE**

**Machinery  
for Power  
Transmitting  
Purposes**

Weller employs  
None but  
Expert  
Hands

Unusual care in manufacturing, and high quality materials, are two reasons why WELLER Machinery lasts so long and satisfies so well. Reducing handling costs is our business. Our elevating and conveying equipment is made to handle the heaviest materials such as rock, stone, ores, cement, slag, etc.

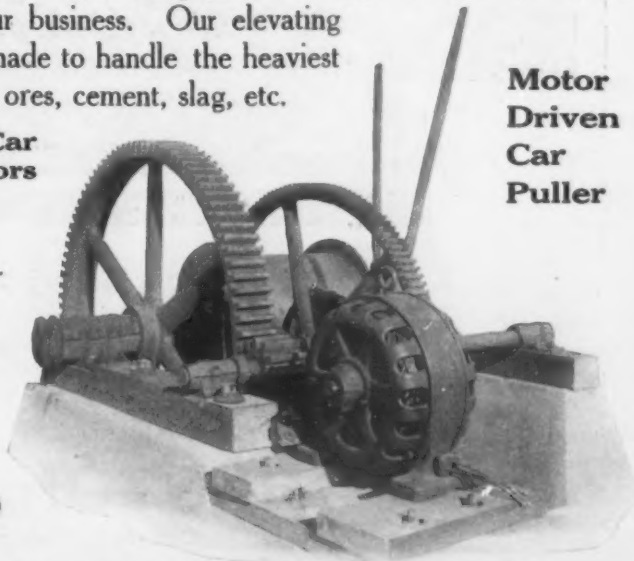
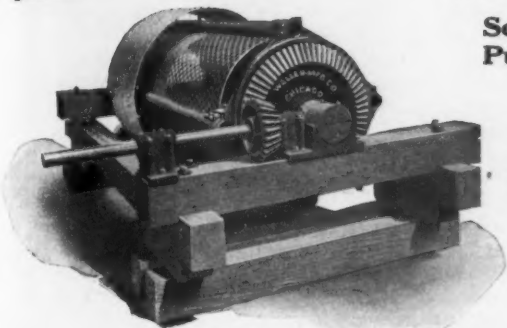
**Screens, Dump Cars, Car  
Pullers, Portable Elevators  
Spiral Conveyors  
Belt Conveyors**

Write us when you need power-transmitting equipment:

**Friction Clutches  
Rope Drives  
Gears, Etc.**

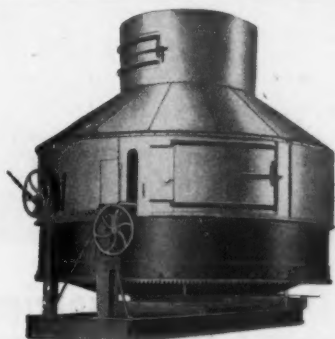
Ask for Cut No. 20 Catalog.

**Motor  
Driven  
Car  
Puller**



**Weller Mfg. Co., Chicago**

New York Office, 50 Church Street.



Clyde Hydrator with Hood  
"The common sense way"

## Don't Buy Hydrated Lime

at random; *specify "Clyde Process" Hydrated Lime.* The material that has the qualities *you* want, either as a consumer or a dealer. The presence of this *quality* has enabled Clyde operators to sell 90% of the Hydrated Lime used in America. Insist on getting "Clyde Process" Hydrated Lime, it will put snap into the appearance of your work, it will ginger up a sick selling organization. If your dealer or producer doesn't carry this material, send us his name, we will tell you where you can get it in your neighborhood. We furnish complete "Clyde Process" Hydrating plants with capacities from 1, ton an hour up. Interesting booklets for the asking.

"The Man that put *QUALITY* into Hydrated Lime."

**H. MISCAMPBELL, Duluth, Minn.**

Patentee and Sole Manufacturer of Clyde Hydrators

**BUFFALO WIRE WORKS CO.**

BUFFALO, N. Y.

We make

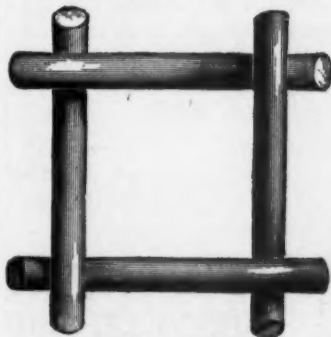
**Wire Cloth**

From the coarsest to the  
finest, for all purposes,  
Also

**WIRE CONCRETE REIN-  
FORCEMENT, WIRE  
WORK of all kinds,  
CORRUGATED WIRE  
"LATHING"**

1-Inch Space, No. 4 Wire

Send for Our No. 416 Catalogue.

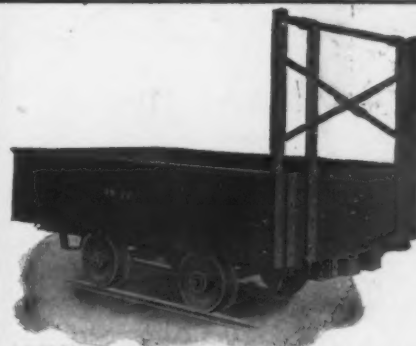


**"INDUSTRIAL"**

**The Quarry Cars That  
Give the Service You Want**

Carefully designed and built to give the longest and most satisfactory service under the severest exactions of quarry usage. There is an Industrial Car for every purpose and each is the best of its kind to be had.

Illustrated Catalogue  
on Request. Write

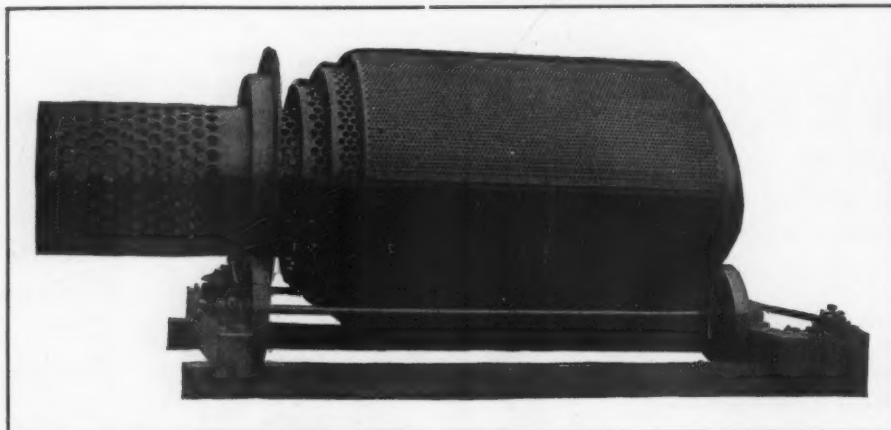


**The Electric Locomotive & Car Co.**

West Park, Ohio

Tell 'em you saw it in ROCK PRODUCTS

# JOHN O'LAUGHLIN'S SCREEN



made solely by Johnston & Chapman, is the

## ONLY SCREEN

on the market for wide-awake quarry-men and miners, who want to separate crushed granite, limestone or other minerals, gravel, sand, coal or coke. It will soon earn its cost in saving of repairs, and maintenance, and reduced power, and will do more and cleaner work than any other cylindrical screen of like area. No one can afford to keep old traps in use when the O'Laughlin installed

## NOW

will from the moment it starts give a better and larger product, and a big interest on your investment in continuous saving in cost of repairs, renewals, and power. For particulars address:

The advantages of these screens are described in detail in a circular which WE WILL MAIL TO ANY ADDRESS. Mr. John O'Laughlin, the inventor, has designed many notable improvements in rock-drilling, quarrying, crushing and screening machinery, and uses these improved screens in his own crushing plants, which others have declared "to be the most perfect in existence in every detail." The O'Laughlin Screen is an important factor in the most modern and perfect stone-crushing plant.

## JOHNSTON & CHAPMAN CO.

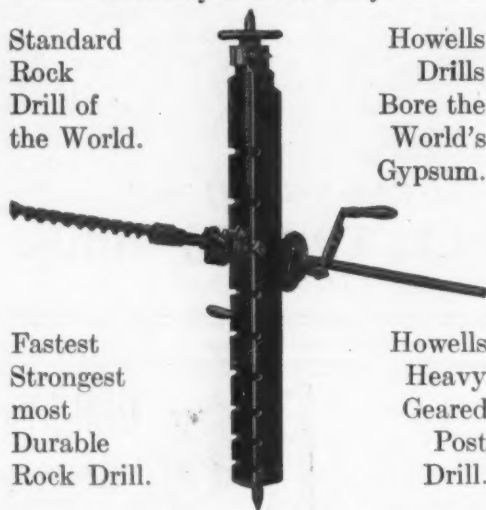
Corner Francisco and Carroll Ave., Chicago, Ill.

Perforators of Sheet Metals, Flat, Cylindrical, and Conical Perforated Screen Plates for Quarries, Mines, Reduction Works, Mills and all Industrial Purposes.

## HOWELLS DRILLS

for all purposes where drills are required. Combine efficiency and economy.

Standard  
Rock  
Drill of  
the World.



Howells  
Drills  
Bore the  
World's  
Gypsum.

Fastest  
Strongest  
most  
Durable  
Rock Drill.

Howells  
Heavy  
Geared  
Post  
Drill.

Thousands of these drills doing duty everywhere — speak for themselves.

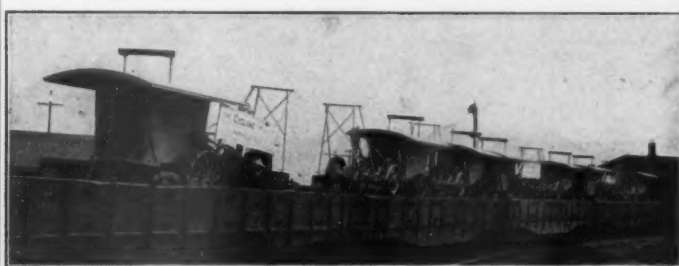
These drills have a record — can't be beat. Will drill from five to seven inches per minute in gypsum or soft rock.

*We make over 40 different kinds of Auger Drills, operated by Hand, Electricity and Air.*

## Howells Mining Drill Company

Plymouth, Pa., U. S. A. ::

Write for Catalogue No. 28 today



## Big Blast Hole Drills for Quarries

WHEN you hear Big Drill and Quarry mentioned together it means a Cyclone Drill—they are one and the same thing; it is the machine that is effecting a saving of from 25 to 75% in producing stone.

The largest quarry installation in the United States, the largest in Canada and the largest in Europe is made up of Cyclones. There's a reason—would you like to know it?

Suppose we send you, say, twenty letters from men who have installed these drills and tell in these letters about the savings effected in their various quarries; would they interest you? Shall we send them? They may tell you something which will start dollars rolling your way.

Just remember that you are competing against the other fellow's cheaper production. Do you recognize the man who is really paying for the modern equipment?

## THE CYCLONE QUARRY DRILL COMPANY

New York Office, 50 Church Street  
Chicago Office, 418 Hartford Bldg.

ORRVILLE, OHIO

Tell 'em you saw it in ROCK PRODUCTS



# We Especially Invite the Attention of Dealers



**MONSCO REINFORCED CONCRETE SILO**  
On Newton Farm, Winfield, Kansas, erected by the Monolithic Silo & Construction Co., Chicago.  
Dimensions 12-32 feet, capacity 75 tons.

## MONSCO SILO EQUIPMENT

**Monsco Molds**—Insure a perfect wall. They build six feet per day, together with chute.

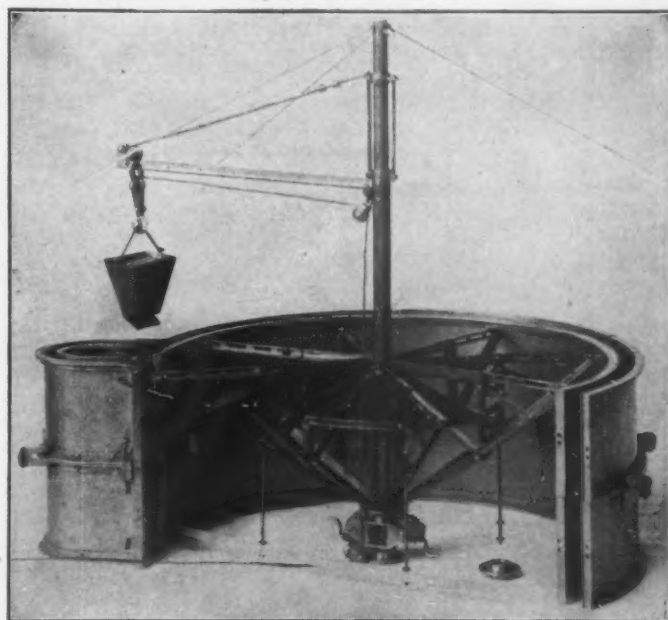
**Monsco Scaffold-Hoist**—Dispenses with all lumber and carpenter bills. You can go to any height with this machine.

**Monsco Mixer**—Especially designed for monolithic silo work. Abundance of power. Mixes and hoists.

MONSCO Equipment is the perfected result of actual experience in monolithic silo construction.

We Secure Contracts for You. Our farm paper advertising covers the entire country and brings us in touch with responsible farmers and dairymen.

Write for our new 50-page booklet containing complete description of Monsco Equipment and our special offer to dealers.



PATENT APPLIED FOR

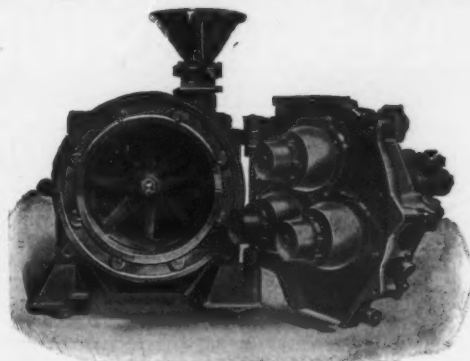
## Monolithic Silo & Construction Co.

SILO SPECIALISTS

Sole Manufacturers of MONSCO Equipment and Builders of MONSCO Silos

954 Peoples Gas Building, CHICAGO

## STURTEVANT Ring-Roll Pulverizer



**For Cement, Limestone, Phosphate, Quartz Granite, etc.**

Takes 1½ in. feed. Product 16 to 100 mesh. Output 1 to 15 tons per hour. Horse power from 15 to 45.

**Only Four Wearing Parts  
Last from 6 to 18 Months**

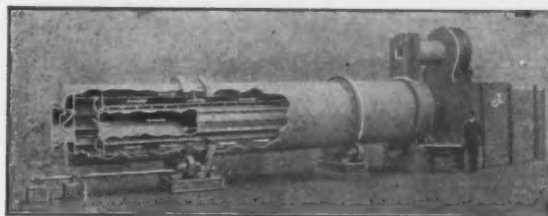
Cost of Grinding less than any other. No slip, no rub, no fans, scrapers, plows, pushers or shields. No screens to clog or tear. A Simple and Accessible Grinder.

**Sold on "Sale or Return" Contract**  
SEND FOR SPECIAL PROPOSITION AND CATALOGUE

**Sturtevant Mill Co., Boston, Mass.**

NEW YORK PITTSBURGH CLEVELAND CHICAGO ATLANTA LONDON  
114 Liberty St. 530 Park Building Am. Trust Building 1116 Fisher Bldg. 1410 Candler Bldg. 147 Queen Victoria St., E. C.

## OVER 350 INSTALLATIONS



There are 350 Ruggles-Coles Dryers operating in all parts of the world drying scores of organic and inorganic materials. A large number of these dryers have been sold on repeat orders which furnishes evidence that the Ruggles-Coles dryer in actual practice has come up to all of our claims and has been built to do the work satisfactorily. Drying with us is neither guesswork nor theory. We know exactly what we can do. We build six classes of

## Ruggles-Coles Dryers

but for drying certain substances special machines are built to order. Plaster, brick and cement plants have widely adopted the Ruggles-Coles Dryer. Send us a sample of the material you wish to dry and our engineers will take the matter up with you.

Booklet "What We Dry" awaits your request.

**Ruggles-Coles Engineering Co.**

CHICAGO OFFICE  
McCormick Building

(37-116)

50 Church Street  
NEW YORK

Tell 'em you saw it in ROCK PRODUCTS





## MEDUSA

### WATERPROOFED WHITE PORTLAND CEMENT

TO THE EXTENT OF OVER 5,000  
BARRELS IS BEING USED IN THE  
NEW WOOLWORTH BUILDING, NEW  
YORK CITY, THE HIGHEST BUILDING  
IN THE WORLD, HERE ILLUSTRATED

**The First True White Portland Cement Ever Manufactured**

PERFECTLY WHITE IN COLOR AND STAINLESS

THE BRAND THE U. S. GOVERNMENT HAS USED  
IN FIFTY BUILDINGS IN THE PAST TWO YEARS

FOR EXTERIOR AS WELL AS INTERIOR WORK

Write for free booklets and samples of

**MEDUSA WHITE PORTLAND CEMENT**

**MEDUSA WATERPROOFING**

**MEDUSA WATERPROOFED CEMENTS**  
(GRAY AND WHITE)

**SANDUSKY PORTLAND CEMENT CO.**  
SANDUSKY, OHIO

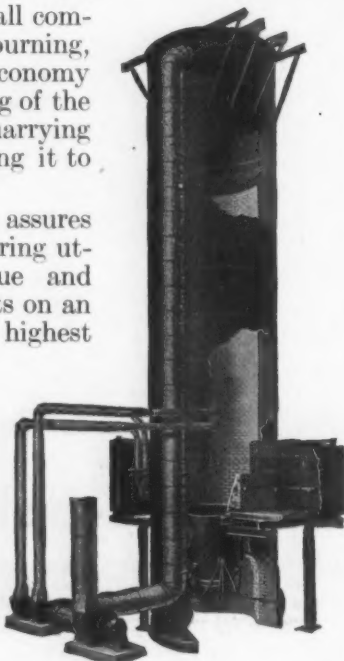


## Complete Lime Plants

We are prepared to install complete plants of lime burning, realizing the highest economy not only in the burning of the lime but also in quarrying the rock and delivering it to the kiln.

This complete service assures our customers of securing utmost equipment value and lowest production costs on an output of lime of the highest grade.

We are the only company offering this complete service, with the security it affords the buyer. Doherty Lime Kilns, of course, are the key to quality and economy in the actual lime burning.



WRITE FOR BULLETIN NO. 4

**Improved Equipment Co.**  
Combustion Engineers  
EXECUTIVE AND SALES OFFICES  
60 Wall Street, NEW YORK

## DIRECT HEAT DRYERS

FOR

**BANK SAND  
GLASS SAND  
ROCK, CLAY  
COAL, ETC.**

**All Mineral, Animal and Vegetable Matter.**

We have equipped the largest plants in existence and our dryers are operating in all parts of the world. Write for list of installations and catalogue S. C.

**American Process Company**  
68 William Street, NEW YORK CITY

BACON & FARREL  
ORE & ROCK  
CRUSHING & WORLD KNOWN  
**ROLLS-CRUSHERS**  
EARLE C. BACON, ENGINEER  
HAYMEYER BUILDING, NEW YORK



## WORRELL'S ROTARY DRIERS

(First Efficient Rotary Fire Driers Built)

DIRECT OR INDIRECT HEAT,  
FOR SAND, CLAY, CRUSHED ROCK, GRAIN  
and other granular or fibrous matter. High Efficiency, Durability and Simplicity.

**IMPORTANT:** In sending for prices and printed matter state your  
required hourly capacity,  
approximate % moisture in your product, etc.,  
or mail pound sample in tin or glass.

**S. E. WORRELL**

Established 1879

209 Center St.

HANNIBAL, MO

## Farnam "Cheshire" Lime Co.

OF CHESHIRE, MASS.

MANUFACTURERS OF THE

### Celebrated Cheshire "Finishing" Lime

Well known throughout New York and the Eastern States as the finest finishing lime manufactured. The special feature of this lime is its quick and even slacking, thus preventing any cracking or checking when put on the wall. It is the best lime used in the country today for all

**HIGH GRADE FINISHING WORK**

Selling Department, 39 Cortlandt St., N.Y., C. J. CURTIN, Pres't.

Tell 'em you saw it in ROCK PRODUCTS

# ROCK PRODUCTS

ESTABLISHED IN LOUISVILLE, KY., 1902.  
DEVOTED TO CONCRETE AND MANUFACTURED BUILDING MATERIALS.

Volume XII.

CHICAGO, MARCH 22, 1913.

Number 9

## THE FRANCIS PUBLISHING COMPANY

EDGAR H. DEFEBKAUGH, Prest.  
Seventh Floor, Ellsworth Bldg., 537 South Dearborn St., Chicago, Ill., U. S. A.  
Telephone Harrison 8086, 8087 and 8088.

### EDITORS:

EDGAR H. DEFEBKAUGH,

FRED K. IRVINE.

Communications on subjects of interest to any branch of the industry are solicited and will be paid for if available.  
Every reader is invited to make the office of Rock Products his headquarters while in Chicago. Editorial and advertising copy should reach this office at least five days preceding publication date.

### TERMS OF ANNUAL SUBSCRIPTION.

In the United States and Possessions and Mexico.....\$1.00  
In the Dominion of Canada and all Countries in the Postal Union..... 1.50  
Subscriptions are payable in advance, and in default of written orders to the contrary, are continued at our option.  
Advertising rates furnished on application.

Published on the 22nd of each month.  
Entered as second-class matter July 2, 1907, at the Postoffice at Chicago, Illinois, under Act of March 3, 1879.  
Copyright, 1913, by E. H. Defebaugh.

The railroad consumption of quarry products in 1913 should be good.

The growth of Portland cement exports to South America is the most interesting feature of the trade at the present time. It indicates that with the opening of the Panama Canal a new vista for the distribution of American-made cement will be available.

If the cement sidewalks in this country were tacked on to each other they would practically furnish a six-foot walk to belt the world, and yet every country town with any progress at all is putting in new sidewalks each year.

The Clay Show which was held in Chicago recently held many things of interest, and brought to this city a number of the principal factors in the building material business. Unfortunately, the attendance of the people was very small. The factors in the business, however, were enthusiastic in endeavoring to make the exhibition a success for the good of the industry.

The sewer pipe interests during 1912 had a good volume of business, but early in the year contracts were made at low prices and many of the factories had to go on through the year shipping their product at a loss when their neighbors were getting a nice profit. The volume of business was unusually good and it seemed like a crime to unload to the consumer the big sewer pipe production at cost or less. If the lesson of 1912 is not sufficient for the manufacturer and jobber of sewer pipe to get together this Spring and maintain a reasonable profitable price, it is their own fault.

Oh! how long will the business people of this country stand for the "howling Dervishes," known as politicians, waving the red flag and keeping the people worked up to the pitch where they believe that any man with money who elects to go into business is a horse thief? It is hard to say, but evidently some real legislation must come about sooner or later to enable business people to get together in a commercial way, so that they may be in a position to solve their own problems, rather than to allow the lawyers and the bankruptcy courts to solve these problems for them.

## Encourage Community Development.

If the community in which you live decreases in population because of the influx to the big cities, or the lack of enterprise in the town to keep the boys with you, the future looks dark for the country unless some new movement along the lines of progress is inaugurated between the farmer and the country merchant, to the end that they may work in harmony and build good roads, more roads, better roads, schoolhouses, wholesome amusements, etc. This will encourage everyone, and enable the farmer and the merchant to transport his goods rapidly and will insure money coming from other sections to pay for your own material in a finished state. Above all, it will cause a personal interest to be taken in your home town, which will benefit the building material man and others, and be the means of promoting a commercial club in your city, which will have for its principal object the upbuilding of the town, and endeavoring to secure the location of manufacturing plants there to find employment for the people. This will cause the boys to stay at home and be the means of building up a prosperous community.

Those who have been expecting our wonderful prosperity to hesitate as a result of the change of political policy are beginning to realize that industrial activity is going on just as if nothing had happened, says the New York Sun. The Pennsylvania railroad has placed an order with the Berwick Car Works for 100 steel coaches, in addition to a recent order commissioning the same concern to build 2,000 freight cars. It is evident from this that the big corporation has faith in the future, and that it expects to keep on carrying passengers as well as transporting the products of the country.

No matter in which direction one may look, there is nothing to mar the perspective. Business is good and getting better. The railroads want cars because they know there is going to be use for them. They would not place their orders if there was the slightest doubt.

Advance agents of calamity ought to desist before they make themselves more ridiculous.

There were times in the past when the crushed stone interests locally, if not as an industry, realized the necessity for a real pull together to eliminate the 35 and 40-cent contracts, and other ridiculous delivered prices for various sizes of crushed stone. The industry has grown materially as the movement for better roads and more good roads has got into full swing and as the people backed it everywhere, but the one feature which has retarded the crushed stone trade is the lack of co-operation of the men in the business. To get out to the quarry at six o'clock in the morning and keep the crusher at work until dark, and load a hundred cars of material is poor compensation when you cannot see a ten cents per ton profit in it.

The reasoning of one of the factors in the trade—who is since deceased, to the sorrow of our industry—is the fact that everything is made so cheaply and sold so cheaply that the margin of profit leaves little for the man with his hundreds of thousands of dollars invested, unless he has the co-operation of his neighbors and the hard-headed determination to get a profit out of his business or not to deliver the stone.

With the sun shining bright on the crushed stone industry at the present time, the year 1913 should be a hummer; and if you do not do your part to get the price up to seventy cents, or where it belongs, you are a poor citizen and a poor factor in a big industry.

Hydrated lime is selling readily wherever building materials are handled, and where one car was sold last year it will be two or three in 1913, emphasizing the necessity for a finished product that permits of the dealer and the consumer to reduce his labor cost and increase his efficiency.



## EDITORIAL CHAT

### COMING ASSOCIATION MEETINGS.

New York State Dealers' Association,  
March 27, Syracuse, N. Y.

The May meeting of the Association of American Portland Cement Manufacturers will be held at the Blackstone hotel, Chicago, Ill., May 13, 14 and 15.

The sixteenth annual meeting of the American Society for Testing Materials will be held at Atlantic City, N. J., June 24-28, 1913, with headquarters at Hotel Traymore.

### ADAMS TO MANAGE BIG CONCERN.

The Malcomson-Houghton Company, dealers in builders' supplies and coal at Detroit, Mich., has been organized, consisting of a consolidation of Henry H. Houghton's Sons, the August Malcomson Coal Company and C. P. Steinhäuser. The new concern will have its offices located on the entire second floor of the Detroit Free Press building, with eleven yards for the distribution of materials.

James C. Adams, formerly of the D. K. Kennedy Co., of Pittsburgh, Pa., will assume the general management of the new company's operations. This consolidation makes a powerful business organization, financially and otherwise. Henry H. Houghton's Sons have been in the builders' supply business in Detroit for many years, and the two other concerns have been the heaviest factors in the fuel business of the primary Michigan city.

Mr. Adams is one of the foremost supply men of the country, having been for twenty-three years identified with extensive building supply and fuel operations of the Kennedy company, and is a recognized builder in the management of such affairs. He has many important business and banking connections in Pittsburgh and has just about completed his preparations for removal to Detroit the first of April, to take active charge of the new duties in connection with his administration of the Malcomson-Houghton Company.

W. J. Brooks, formerly connected with the Chicago & Alton Railroad, at Bloomington, has accepted a position with the Lincoln Sand and Gravel Company, of Lincoln, Ill., having charge of their mechanical equipment.



JAS. C. ADAMS, MALCOMSON-HOUGHTON CO., DETROIT, MICH.

F. Lawson Moores, of the Moores Coney Company, of Cincinnati, attended half a dozen conventions in Chicago recently, representing the various branches of his building material interests.

A. H. Gallagher, of the National Retarder Co., Port Clinton, Ohio, spent a couple of days in Chicago last week and reports business opening up fine, and it is his impression that the industry will be very active this year, 1913.

Claude Filer has severed his connection with the Henry Houghton Company and is now connected with the Lehigh Portland Cement Company in the capacity of traveling salesman, covering Michigan and Indiana, with headquarters in Detroit.

C. W. McDowell and Phil Johnson, city salesmen of the Fischer Lime & Cement Company, Memphis, Tenn., have purchased adjoining lots in one of the nicest residence streets in that city and each has decided to build an elegant home this spring. In fact, they have already begun operations.

Harold Johnson has resigned from the presidency of the Johnson, Jackson, Corning Co., dealers in building materials, Minneapolis, and has opened an office at 1137 Plymouth Bldg., making a specialty of the hollow tile fireproofing products of the Nation Fireproofing Co., Chicago, Pittsburgh and New York.

F. R. Kanengeiser, of the Bessemer Limestone Co., Youngstown, Ohio, was a Chicago visitor last month. He says that the big crusher has made a record season, and that Bessemer paving blocks which were first made in order to economize the process of stripping the quarry has grown into the main feature of the company's operations.

Wm. B. Ruggles, president of the Ruggles-Coles Engineering Co., 50 Church street, New York City, recently returned from England and advises that the Electro-Metals Co., Ltd., London, have been appointed their sole agents for all of Europe, excepting Norway and Sweden. The Electro-Metals Co., Ltd., will appoint sub-agents on the continent.

All roads seem to have led to the Panama Canal this past month, and of the number of members of the building material trade, who wended his way south, was J. A. Henley, of the American Cement Plaster Co., Lawrence, Kansas, accompanied by Mrs. Henley and reported having a splendid time as they have recovered from a good case of the gripe in the Southern clime.

J. R. Bolgiano and George R. Lyman have taken charge of the Chicago sales office of the Taylor-Wharton Iron & Steel Co. The well-known trade mark of "Tisco" for manganese steel castings has been changed to "Twisco" by reason of the consolidation of the old Taylor and Wharton companies. There will be no difference in the wearing parts made at the same works in High Bridge, N. J., and Philadelphia. The Chicago office will be located at 105 West Monroe street.

Harold A. Swett is a new acquisition to the sales force of the Lehigh Portland Cement Company in the East. He works in Jersey and around the Metropolitan district. Harold is a second edition of Bert Swett, who is the astern sales manager of the Lehigh company, and one of the first youngsters to enter and grow up with the cement industry in America. At the New Jersey dealers' meeting Harold was passed out as Bert's oldest son, and the thing went for quite a while till some of the old regulars happened to remember just how long it was since Bert wore knickerbockers and went to school on the East Side.

H. A. Johann and Martin O'Shaughnessy, who have been in charge of the Taylor-Wharton Iron & Steel Company Chicago office, looking after the manganese steel business over the Central and Southern states, have resigned and will leave the Chicago office March 31st. Mr. Johann has been connected with the company, which was formerly the Taylor Iron & Steel Co., since 1897, and has been recently the oldest man on their staff and was among those engaged in the earliest exploitation work in manganese steel which, for many years, was produced in America by no other company. He was in charge of manganese steel work everywhere south and west of Pennsylvania, throughout the Mississippi Valley, and the Lake Superior iron and copper companies, all of whom will probably regret to hear of his leaving the business. Mr. O'Shaughnessy has been connected with the company for the last two years and has a host of friends among the trade who will be sorry to hear he is to go into other business.

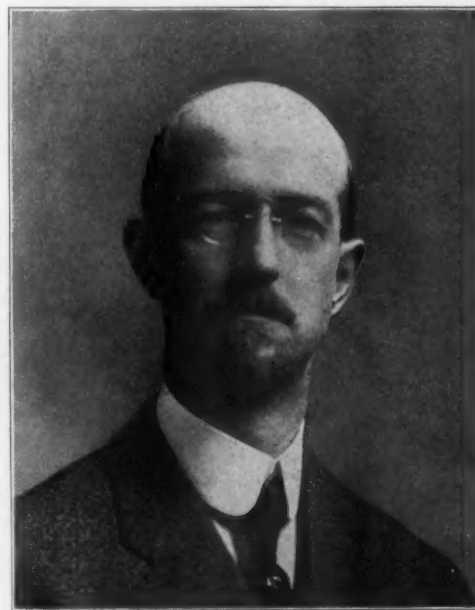
J. M. White, engineering salesman for The Jeffrey Manufacturing Company, located until recently at its Athens, Ohio, offices, has been transferred to Duluth, Minn. Mr. White will look after the sales work of the above company in the following territory: The eastern part of Minnesota, northern Wisconsin and the entire upper peninsula of Michigan, with headquarters at 1905 East Superior street, Duluth, Minn.

F. W. Thomas, of Thomas Bros. & Co., Detroit, Mich., is in Kingston, Jamaica, recuperating, the last letter received from him saying that he is feeling much better and improving rapidly. W. G. Thomas, of the same firm, has just returned from Akron, Ohio, where he spent a week on business. Previous to that Mr. Thomas was in Washington, D. C., where he appeared before the Senate committee advocating Niagara power for Detroit via Windsor, Ontario.

B. E. Allison, who is widely known by reason of his long experience in the management of sales of cement in the Kansas field, has become general manager of the Fredonia Portland Cement Company, of Fredonia, Kan., and will hereafter be in charge of both the operations of the concern and the management of its sales. Mr. Patterson, the president of the Fredonia company, has returned home from Battle Creek with his health much improved.

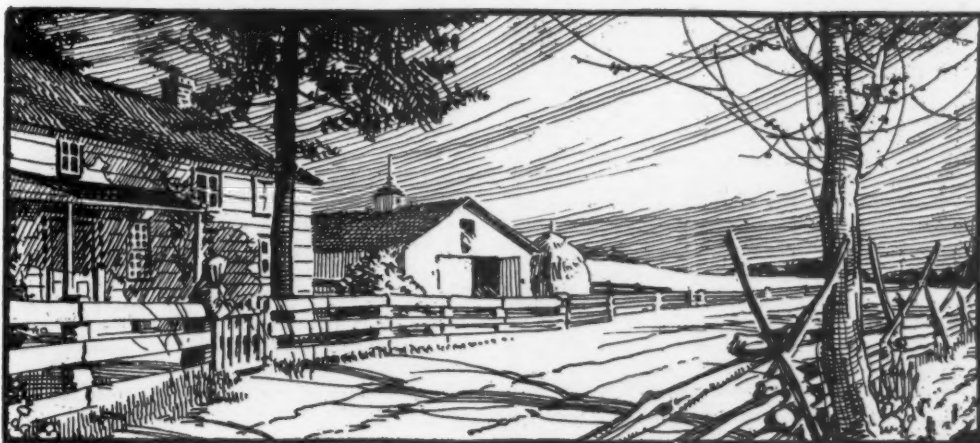
During the brick makers' conventions in Chicago, when all the brick men of the country were in evidence, Rock Products dropped into the Annex Hotel and found a bunch of enthusiastic sand-limers making one of the little side groups. The party consisted of W. C. Carmichael, of the American Clay Working Machinery Company; W. H. Crume, of Dayton, O.; A. Berg, of the Berg Brick Machinery Company, and W. M. Burchfield, of Rochester, N. Y. It was a little impromptu convention, for that was the order of the times, and the way the conversation drifted it seemed to be a prosperity congress more than anything else. It is certain that no other group of equal size of all the people there assembled could find more optimism.

E. S. Larned, who has been well known to our readers for many years as one of the leading lights in concrete, and who has long been connected with the National Association of Cement Users' Association as a member of its board of directors and chairman of its various technical committees, has been appointed manager of sales in New England for the Lehigh Portland Cement Company, with offices in the Beacon building, Boston, Mass. From the first development of Portland cement Mr. Larned has been one of the men in the front ranks, both as an engineer and a writer. His papers on sand and other aggregates in the New England territory are perhaps the best obtainable literature on this particular subject. He is well known to the cement trade in Boston and vicinity and has the confidence of a very wide circle of business acquaintances.



E. S. LARNED, LEHIGH PORTLAND CEMENT CO., BOSTON, MASS.





## A FARMER'S TESTIMONY.

1.

Some forty years ago when Father left this farm to me  
The stumps of fresh cut timber land was all that you could see,  
Except an acre here and there we sowed to early wheat,  
Or oats and hay, and truck, of course, we had to have to eat.  
It did seem sort o' hopeless, but I buckled to it right,  
And being stout and healthy, too, I worked with all my might  
Until I got it tillable, so crops would really pay,  
And leave a little I could save against a rainy day.

2.

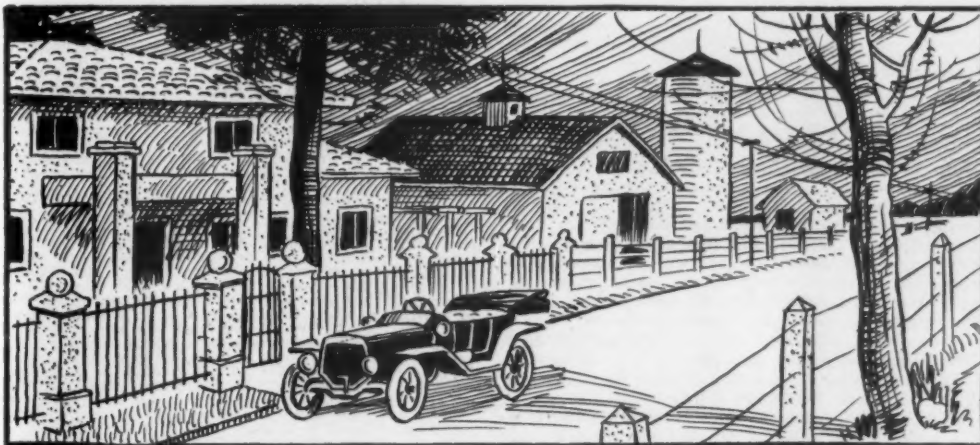
The farmhouse wasn't much for nice, but 'comfortable enough,  
The barns were large and airy, but the live stock all was tough.  
Well I should say, they had to be, for winters then was hard,  
And man or beast that grumbled, wasn't worthy of regard.  
You young lads haven't much idea of what we went through then,  
But struggles and privations helped to make us stronger men;  
And lookin' back, I sometimes feel a pang of real regret,  
And wish those days of up-hill work were back again, you bet.

3.

For now each job has tools to fit, that cut the work in two;  
The barns may stand a century, they'll always look like new;  
The old ways, tools, and buildings look curious today,  
But I suppose it's just as well to throw the old away.  
The farm I knew when I was young was barren when compared  
To what it yields me now each year, and will while yet I'm spared,  
So after all I guess I'm really better satisfied,  
And wouldn't change things back again—I couldn't if I tried.

4.

That silo there, for instance, and the corn-crib by the fence,  
Will stand as good as they are now a hundred years from hence.  
Cement, b' gosh, has done it, and believe it man, or not,  
Of all the new inventions, cement's the best we've got.  
It aint got no restrictions, you can use it anywhere;  
For houses, barns or fences, a porch or garden chair;  
For anything that's on the farm, you want made strong and good  
Just try cement, and use it as a substitute for wood.



## SMITH COMPANY GIVES HOUSE WARMING.

The grand reunion and house warming of the T. L. Smith Company at Milwaukee on February 26th and 27th marked a very important event in the history of this pioneer concrete mixer company. This was the formal opening of the magnificent new office building located across the street from its present shops. The celebration took the form of a reunion of the out-of-town managers and agents who came to Milwaukee as the guests of the Smith company, and who were entertained in various pleasant ways. The mornings were taken up with trips through the several shops comprising the Smith company's immense plant. These excursions were made as instructive as possible by demonstrating the various new machines, which will help keep this progressive company at the front during the year 1913. During the noon hours the guests, including the department managers of the local offices, were treated to a splendid luncheon. The chief engineer of the company, E. W. Meyer, proved himself an excellent host on these occasions, as everyone seemed to be enjoying himself and all partook heartily of the tempting lunch. The afternoons were spent in listening to instructive talks by various members of the organization.

T. L. Smith, president and founder of the company, presided and was always ready with apt remarks both in introducing the speakers and in supplementing their talks. He opened the program with a splendid address of welcome which took in the life history of the Smith Mixer, dating back to its beginning in Mr. Smith's cellar workshop, and following through the various trials and tribulations up to the present prosperous time. He was followed by E. W. Brackenbury, the company's well-known designer, who gave a fine talk on the Brackenbury "Dreadnaught," as the Chicago street paver has been named. E. W. Meyer, the genial chief engineer, followed with a talk on the Smith "Hot" Mixer and its place in paving work. P. G. West, assistant sales manager, then followed with "A Chicago Mixer Man and His Conviction." The first afternoon's program was then brought to a close with an address by Ross Hunter, the Atlanta (Ga.) district manager, on the subject, "A Little Mixer With a Big Market." This referred to the Smith Hand Mixer which met with instantaneous success the moment it was placed on the market.

The crowd all met at the Milwaukee Athletic Club at night, where P. G. West entertained them with a Beefsteak Dinner. Each guest had to put on a white apron and fancy cap and had to be satisfied with primitive styles. The table and chairs were made from old boxes and barrels, the service was from pails, buckets and small boxes, and the refreshments came direct from the keg. This dinner was followed by a trip to the theater where Edison's new talking-moving pictures vied with the Hawaiian "Hula Hula" dance for popular favor.

The program, continued the second day, began with an address by the head of the crusher plant, George Hubbell, who, with T. L. Smith, gave a clear, concise exposition of the Symons Gyratory Crusher. This was followed by a practical demonstration of the Fairbanks-Morse gasoline engine by Mr. Trimble, representing the Chicago office of the Fairbanks-Morse Company. E. R. Marker, Wisconsin district manager, then gave his views on "Sales Correspondence," which showed very clearly how to obtain prospects and how to convert them into orders. W. J. Buckley, with his talk on "Mixer Orders, Their Faults and Virtues," and Charles F. Smith, with his closing address on "Pulling Together for Business," showed what splendid hands were at the helm of the Smith company's ship of state as secretary and treasurer and vice president.

The grand banquet in the Red Room of the Pfister hotel in the evening was a fitting climax for this happy occasion. T. L. Smith again presided and called for many toasts—A. L. Tucker, the Chicago district manager started off with "Imprisoned in Chicago;" C. L. Kirk, who handles the Pittsburgh territory, gave valuable points on "How to Keep Clean in Pittsburgh." He produced clean collars from every pocket without a moment of hesitation. E. R. Marker, "The Sewing Machine Man," took up the thread of his subject but snipped it off short, and Ross Hunter, from the Sunny South, proved his assertions on "Modesty." Anecdotes, stories and good humor flowed freely when J. A. McCarty responded to "Soldier, Policeman, Salesman—of How I Kissed the Blarney Stone." With many toasts of respect for the departed and expressions of good will for every one, the banquet closed in a blaze of glory which was a magnificent tribute to him who made it all possible, Thomas L. Smith.

The Atlas Car & Manufacturing Co., Cleveland, Ohio, will shortly begin the erection of a new plant consisting of two main buildings, each 100x400 feet, one story high.

# NEW JERSEY DEALERS HOLD CONVENTION

The annual meeting of the Mason Material Dealers' Association of New Jersey was held in New York city on March 13, the Hotel Manhattan being the headquarters.

Walter C. Shultz, of Hoboken, who for five years has been the president and leader of the organization, was succeeded in the presidency by Frank H. Genung, of Newark, who has been for several years one of the most active and efficient members and co-workers with Mr. Shultz and the exceptionally able and energetic coterie of officials with which the association has always been fortunate to provide itself from amongst the Jersey dealers.

The executive meeting of the association was called to order by President Walter C. Shultz.

Secretary James M. Reilly orally reported the doings of the several meetings of the board of trustees.

Treasurer Frank H. Genung showed a wholesome balance in the treasury, and reported that there were 128 members of the association, forty of whom were in arrears for dues. The report dealt with the expenses of the campaign of the year 1912 and the progress that had been made thereby.

A discussion of the canal rates for the delivery of brick at Perth Amboy and other places was referred to a committee for adjustment with the railroad rates, etc.

The committee on revision of the constitution was suggested by President Shultz and was provided by a motion duly moved and carried. The committee was instructed to so revise the constitution as to bring it up to date and to make what other changes they found to be advisable and report at the next meeting of the board of trustees.

A discussion arose as to how many pounds of cement there should be in each bag. Some of the members had found bags of cement weighing 82 pounds, the average of the shipment being less than 90 pounds, with the bag included. This question was brought up in the open meeting later and it developed that 376 pounds of net cement made the official barrel, which, with the bag, would make 95 pounds.

Secretary Reilly reported that Morton T. Brewster, chairman of the committee of arrangements of this meeting, had been detained at home on account of sickness, which announcement was received with regret and expressions on the part of some of the members of the hope of his speedy recovery.

The following officers were elected:

President, Frank H. Genung, Newark.  
Vice-presidents, Uriah F. Washburn, Jersey City; F. W. Veghte, Roselle.

Advisory Board, Charles W. Ennis, Morristown; Walter C. Shultz, Hoboken.

Treasurer, Charles Agnew, Paterson.

Secretary, James M. Reilly, Newark.

Trustees (term expires 1916), M. Tattersall, Trenton; M. F. Ellis, Bernardsville; W. C. Salmon, Boonton; J. D. Loizeaux, Plainfield; Horace S. Osborne, Upper Montclair; G. Frederick Richters, Perth Amboy.

Trustees (term expires 1915), Selah Schoonmaker, Somerville; Morton T. Brewster, Ridgefield Park; M. P. Stephens, Summit; E. L. Cadmus, Bloomfield; Joseph Brady, Bayonne; H. A. Todd, Plainfield.

Trustees (term expires 1914), J. W. Clinton, Passaic; George A. Smock, Asbury Park; Edwin Demarest, Tenafly; I. R. Rolfe, New Brunswick; Henry N. Sayre, Newark; Elmer Blauvelt, Hackensack.

After the associate members had been invited to come into the room Chairman Shultz made the following little address:

## ADDRESS OF PRESIDENT SHULTZ.

The delightful recollections of the five years in which you have so highly honored me will long remain with me. The friendships which have been made and the information which has come to me through our meetings and the work of the association are among my choicest possessions. The progress that our association is making is good to see, for it is bringing us closer and closer together.

Under the leadership of our new president I know that our advancement will be rapid and sure, and I am glad that our by-laws permit me to remain on the board. It will give me great pleasure to serve under one who by his unselfish efforts and the liberal gift of his valuable time has placed us all in his debt. I know of no one better qualified to lead us to the goal

of our ambition, and I ask you to give him the same hearty and generous support that you have given me in all of the five years that I have had the honor to serve as your president.

In its eight years of existence the New Jersey association has undoubtedly been successful in bringing about a great improvement in trade relations, a better understanding between its members and a wholesome regard for each other. This has been made possible only through the spirit of fairness which prevades our association. It is not by any means confined to the dealers, for our associate members are no less loyal, nor have they done less to promote the good work that has been accomplished. Nothing has given me greater pleasure than the little confidence that some of the salesmen have entrusted me with.

By asking my advice when in doubt they have honored me greatly and the work has been made so much easier and so much more effective by these little talks, that I cannot let this opportunity pass without expressing my gratitude and trying to impress on the minds of the dealers the importance of extending a cordial welcome to the young men, and their seniors, too, who have the interest of the association at heart and who are doing their part to keep the trade in its proper channels. Any one of them may some day be the sales manager or the president of his company, and when he attains that altitude he should remember that the policy of his company will be shaped from his experiences of today. In the meantime he must make sales, and the treatment that you give him has much to do with the course that he will take.

In considering the problems that confront us there may be some doubt in your minds as to whether the new laws known as the "Seven Sisters" will make any difference in the work of our association. I cannot see any reason why they should, for the association has always avoided such acts as those laws are intended to prevent. It—the Association—aims to benefit not



WALTER C. SHULTZ, HOBOKEN, N. J.

only those who are engaged in the masons' material business, but every branch of the building interests. It seeks to do this through the promotion of uniform rules for the delivery of material, the handling of credits and the elimination of waste in the trade. It does not stifle competition but it does discourage the bitterness with which competition is sometimes carried on.

The lien law is a matter in which we are deeply interested; we want it to be a fair one in all respects and the commission appointed by President Wilson has labored long and hard to make it so.

We were most ably represented in that commission by Mr. Genung, our new president, and I know that his talk this afternoon will be of great interest to us.

In closing I want to thank the board for their hearty and vigorous support; our very efficient secretary for his valuable help and our members for the courtesy and good will that I have received from all.

He then called on Frank H. Genung, of Newark, to discuss that all-important subject of "Lien Law Legislation." Mr. Genung has served as a member of the New Jersey Lien Law Commission, being appointed by the now ex-governor Wilson about one year ago, and he has been very prominently active in the work of that commission.

We expect to publish Mr. Genung's paper on "Lien Law Legislation" in a later issue of Rock Products.

Percy H. Wilson, secretary of the Association of American Portland Cement Manufacturers, was next called on for a paper entitled "Concrete Road Construction." Mr. Wilson handled his subject in a masterful manner and the paper was illustrated by

a number of stereopticon views showing the development of the concrete road up to date. He said in part:

## CONCRETE ROAD CONSTRUCTION.

By Percy H. Wilson.

Mr. President and Members:—The art of building roads dates from our earliest knowledge of man. The first, however, to perfect this art—for we believe it to be an art—and to build truly good roads were the Romans. Appreciating the necessity of a quick movement of their troops to all the distant parts of their empire, they built roads from end to end of it. There are two very interesting points relative to these roads. The first is that although many of them were built over 2,000 years ago, they are today in use, and in fairly good condition at that. They do not, of course, present the finished surface which we have come to find is necessary in a proper roadway of today, but they are still driven over and have withstood that most rigid of all tests—time.

The second point of interest is in the quantity of material used in laying the road. These roads were, as a rule, considerably wider than 20 feet, and instead of being 8 or 10 inches thick, were from 4 to 5 feet. The deans of those ancient days supplied for a mile of such a road from 8 to 10 times as much material as is required on a road such as we are building. What a harvest they must have had, and how quickly become men of wealth and influence!

But others besides the Romans built roads and good roads which have lasted up to the present day. When the Spaniards conquered the Peruvians they found there a civilization advanced along many lines, and the principal advancement, from an engineer's standpoint, was in the roads which they built. Not only did they understand how to grade and put a wearing surface on such roads, but they could protect them from drifting sand or snow by the addition of mud-dikes. These dikes were located in such a way as to always keep the surface of the road clear.

For many years road building was more or less of a haphazard proposition, but Macadam and Telford, realizing that more exact methods were necessary, each designed a class of road construction, both of which are in use today; and had it not been for the advent of the automobile such roads would be giving us very fair satisfaction.

Up to 15 years ago road building had become merely a matter of getting materials on the ground at the lowest possible price and putting them in place. The method of doing this work was so well established as to have become a custom. But with the ever-increasing automobile traffic it was found that the roads did not stand, and road engineers all over the world have been looking for the last 10 years for a material of which to build roads that would not ruin the community to maintain.

The development of any district depends, to a very large extent, upon the class of roads which it possesses. Were it not for the improved pavement in the cities they would never have risen to the dignity of cities, but still remained small hamlets and towns. As a rule, the pavements in cities are far superior to the country roads surrounding them. This should not be so, since much of the money which comes to a city is derived from the community immediately surrounding it.

Good roads enable the surrounding farmers to market their product in the town, and when this is done they purchase material in that town to carry back with them to the farm.

Now a good road when built attracts to it travel, both horse and automobile, and this alone enhances the value of the property which can be reached over the road.

I trust you will permit my digressing a moment to explain to you the work being done by the association I represent. We are not a sales organization and we are nothing to do with the sale of cement. We have realized that the sale of cement can be increased or restricted by its proper or improper use. If a man in using cement in concrete work obtains good results, he will use more, as will his neighbors. If, on the other hand, bad results are obtained, the use of the material will have received a set-back which only time will overcome. Therefore, we believe that the work of our association is as important in preventing abuse as in creating use. For this reason we only recommend the use of concrete after a very thorough investigation, and our investigation of the use of concrete in road construction has perhaps been the most thorough ever undertaken by us.

In 1912 we started by requesting information from every engineer in the United States who we knew had built a concrete road. We then started a man out to see these roads. He talked to the men who built them and to the men who used them, and the results of this investigation make us feel perfectly confident in making the statement that the only material yet discovered which will withstand the combined horse and automobile traffic is concrete.

Every man in every community is interested not only in the amount of taxes which he has to pay, but in the way such tax money is spent. If the money for taxes is first placed in the ordinary class of country road construction at a rate, we will say, of \$10,000 a mile for 16-foot roads, the community will have to pay thereafter, in order to have the use of the road, which they certainly have a right to expect, about \$1,000 per mile. The figure is based on the cost of maintenance on improved roads in the states of New Jersey, New York and Pennsylvania.

Now the National Grange of Pennsylvania came out very strongly against improved roads, and we do not blame them, because the farmers and taxpayers generally have come to understand that while the first cost of roads as ordinarily built is \$10,000 a mile, and while a community can probably afford to pay the interest on such an investment, they realize that after a year has passed they must continue to pay 10 per cent a year in addition in order to keep the road in passable shape. Let us turn for a moment from this impossible condition—because if continued it would practically ruin every community—to look at what has been accomplished in concrete roads as far as maintenance is concerned. We know of a road built 18 years ago which has been maintained for those 18 years at a cost of a little less than \$25 a mile, and 18 years ago we did not know as much about building concrete roads as we know today.

Wayne county, Michigan, has 65 miles of concrete roads, built in 1909, 1910, 1911 and 1912, and during



these years the cost of maintenance has been less than \$300 for the entire 65 miles.

Now, in increasing the consumption of cement through concrete roads, every one of you gentlemen is interested. I imagine that you all sell Portland cement; if not, you all should. It takes 2,500 barrels of Portland cement for every mile of concrete road that is laid, and naturally the closer in contact you come with the way the money on roads is being spent in your particular district, the closer you will come to selling cement for concrete roads if they should be so built. Your interest in the subject is therefore two-fold: first, because you yourselves in delivering material can do it cheaper and more economically if the road is of a kind which at all times in the year present easy traffic possibilities; and, second, because you are interested in selling the cement for these roads.

Now your local territory is peculiar in itself, and a knowledge of local conditions is an absolute requisite in making sales of any material used in that locality. You all realize this, of course, but I am calling it to your attention so that you will realize the necessity of your taking an interest in seeing the roads built in your locality are of concrete. The work which you can do will bring much quicker results than any work which an association such as ours can do, and it will bring much quicker results than the work which can be done by any individual company. We cannot too strongly impress on you the advantage to yourselves; it seems that this has been made clear. We have also endeavored to make clear to you the advantage of concrete roads. As to the exact plan which each of you will pursue in forwarding this work, it is difficult for us to say, although perhaps it may assist you if a few general schemes are suggested.

In New Jersey, every county has its own engineer, and the money which is spent in any county is spent under the direction of the county engineer, even though it may be a state aid road. In addition to this the board of freeholders in each county are men who have some say as to the class of roads which shall be built. Your influence with these men in your own county is unquestioned, and if this influence be exerted toward increasing the consumption of cement through building concrete roads, you yourselves will profit. The county engineers and boards of freeholders all have meetings, and arrangements can be made with our association to have one of our road men deliver a lecture before such a gathering; or, should you yourselves prefer to give these lectures, we can furnish you with an attractive set of lantern slides thoroughly illustrating them.

Probably most of you carry advertisements in some of the local papers, and if you do this, why not in your advertisement suggest that you can give the people of the community interesting information relative to the use of concrete in road construction. An application to the particular cement company from whom you chance to be purchasing cement will undoubtedly be sufficient to secure for you the literature which you need to make this advertised promise good; or, if your preference is in a list of names to this manufacturer, who will undoubtedly furnish these people with the information direct.

Many country newspapers are anxious for good live material, and there is no livelier subject today than that of road construction. Therefore, you undoubtedly knowing the editors of your local papers, could get them to publish articles on concrete road construction, and if you would care to take this matter up, our association can furnish you these articles.

Now these are only a few of the ways in which this work can be done, and it seems rather absurd for me to advise you gentlemen, who are undoubtedly all thoroughly familiar with your own local political situations, as to the best method of accomplishing this work. If I have today impressed upon you the advantage of this work to yourselves and to your community, I will feel entirely satisfied.

At the close of Mr. Wilson's paper several members expressed their lively interest in the matter of concrete road construction by questioning him both as to the technique of materials and the methods of construction of concrete roads. He was ready for every emergency and carried his subject to completion in a most convincing manner.

James H. Baker, of New York, next addressed the meeting, having for his subject "Efficiency in Business." Mr. Baker has made a study of efficiency systems of accounting and of following up of business, and reviewed very carefully the topics of accounting, collections, salesmanship and systematic co-operation of the clerical and sales force of the business. He also emphasized the importance of annual audit by certified accountants and suggested that no modern business could succeed in the larger and broader sense of the term without a systematic method of concentrating the efforts of each and every employe, including the officers and every member of the working force.

J. K. Hammond, a veteran brick manufacturer, was next called on to speak, and he expressed his very cordial appreciation of the progressiveness of the organization as shown by the part taken by the members in the discussion of the several papers. He said that as a brick manufacturer there was entirely too much talk about cement and concrete to suit his own particular view of the case, but that the association was to be congratulated on the uplift which it showed in the building material business by getting together such a body of representative business men, all intent on doing their duty as citizens and to their communities, by taking care of their building material needs, and to themselves as operators of fair and just business establishments.

At this point President Shultz resigned the chair by requesting Mr. Ellis and Mr. Richters to con-

duct the new president, Frank H. Genung, to the chair of state.

Mr. Genung, with a few appropriate remarks of thanks to the members, said that he felt the mason material dealers of New Jersey have in this organization established a feeling of mutual confidence in one another, which is the basis of the progress that the organization has made and the good that it has accomplished. He said that more than any other one thing a new standard of credit in the state of New Jersey was needed, and that it would be the first work of the incoming board of trustees to originate and inaugurate a better system of extending credits than that which has been in vogue in the past. Such a protection was needed by the building material dealers, and it was no more than is just and right.

He referred to the protection, or lack of protection, which the lien laws of the state had given, and brought out the points of its inadequacy and lack of applicability in many cases. He further stated that all of this would be the subject of future work which would be immediately taken up by the board of trustees, and the members duly informed and called upon to co-operate in the same.

The meeting then adjourned for an hour's recess, while the annual banquet was being spread.

The official color of the Mason Material Dealers' Association is Rock PRODUCTS golden rod and the chef had printed his menu in that color, and there



JAS. M. REILLY, NEWARK, N. J.

were 125 covers laid for the dealers of New Jersey, associate members and a few invited guests. The list of good things to eat was too long for publication here, for after cigars and wine there was an intellectual treat in the shape of five intensely interesting addresses on the following subjects:

"Progressive Ideas," by Hon. James G. Blauvelt, Paterson, N. J.; "The Transportation Problem," by Hon. J. Hampton Moore, member of congress, Pennsylvania; "The Currency Question," by Edmund D. Fisher, deputy comptroller of New York; "State and National Legislation," by Hon. William E. Tuttle, Jr., member of congress, New Jersey; "Problems of Government," by Hon. George L. Record, Jersey City.

#### AMONG THOSE PRESENT.

Herbert M. Fetter, of the William G. Hartman Cement Company, of Philadelphia, and Charles H. Cox, New York representative of that concern, were mixing it up with the Jersey dealers, who are for the most part their old friends and comrades.

Lawrence S. Pritcher, represented the Whitehall brand of Portland cement.

Bertram M. Swett, eastern sales manager of the Lehigh Portland Cement Co., moved his office temporarily to the Manhattan Hotel, and from last reports was still doing a splendid business at that headquarters.

A. E. White, J. B. King, J. B. King & Co., who represents that firm to the Jersey trade, was in the lobby crowd of entertainers.

Albert Moyer, sales manager of the Vulcanite Portland Cement Company, in his own cordial way was making things pleasant for those who attended the convention.

Tomkins Bros., of New York, Newark and Irvington, were represented by Ambrose Thompson and

Thomas M. James. Mr. James has entirely recovered from the blood poisoning incident which overtook him in connection with his visit to New Orleans last month, and was on the job with that kind of a smile that won't come off. Mr. Thompson reported that business in the Metropolitan district was never better than at the present time.

J. M. Reilly, the redoubtable and unmatchable secretary of the association, was on the job from start to finish; in fact, the progress of the association is due in no little measure to the energy and persistency of its secretary.

Walter C. Shultz, the retiring president of the association, has been a steady and careful pilot for a pilot for five years of the best history-making record the organization has enjoyed. He is one of those fair-minded and even-balanced men who without effort makes his character felt when he comes in contact with his fellows, and whose digested experience in the building material line has made him a tower of strength for the association.

Frank H. Genung, the newly elected president of the association, enjoys the distinction of being selected by President Wilson when he was governor of New Jersey to serve on the Lien Law Commission, which was one of the important features of legislation considered during his administration as governor. Mr. Genung well merited such a high appointment by the active manner in which he handled the matter, as shown in his paper.

The Atlas Portland Cement Company was represented at the meeting by A. V. Moore, who shook hands with the last departing dealer the afternoon after the banquet, for there were a number of holdovers who remained for a little social session after the main body of the meeting had dispersed.

Both E. Meyer, sales manager, and Maurice Hunter, the whirlwind salesman of the Edison Portland Cement Co., were members of the entertainment committee that helped to make things pleasant.

William Wallace, of the American Sewer Pipe Company, from the New York office at 30 Church street, was among the associate members of the association who was there.

Charles M. Bye, sales manager of the Charles Warner Company, with several members of his staff, was present to take in the entertainment features of the meeting.

John M. Campbell, the old wheel-horse convention worker of the Jersey association, was on hand, although he is now a fire brick manufacturer down at Kreischerville, Staten Island.

Charles Agnew, of Paterson, is always one of the floor working members of the Jersey association. He has not only got on opinion, but nearly always a good suggestion that is worthy of the consideration of the dealers who have come together for the uplift of their business and the advancement of the building material interests.

Lovell Carr, of the Alpha Portland Cement Company, that veteran of the industry who has been on the firing line from the days of the first skirmishes in the introduction period of American made Portland cement, has a long list of historical anecdotes which he is always ready to tell on convention occasions. He was at his best at the Jersey meeting.

C. J. Curtin was the only lime magnate in evidence at the Jersey dealers' meeting. Everybody uses New England lime in Jersey, and Brother Curtin is quite as popular as his goods. He remarks that the good winter conditions for the building business is making the finest opening of the season in 1913 that the lime business has ever known.

Laura Roofing Co., Inc., of Manhattan, roofing materials, \$10,000; Rosarid Laura, Anthony F. Laura and Gaetano Ballato, 448 East Thirteenth street, New York.

Evans-Pierce Supply Company, Chicago. Capital stock, \$5,000. Dealing in building materials, fuel, ice, etc. Incorporators, John X. Evans, Erin D. Henderson and Charles H. Pierce.

J. A. Levensaler & Co. have taken the western agency for a fire-proof partition under patents owned by the Colorado Building Supply Company of Denver. The Levensaler Company will handle these partitions in conjunction with their other lines of building material.

Articles incorporating the Contractors' & Builders' Agencies, Inc., have been filed by Frank J. Kelly, M. J. Buchanan, A. V. Hawkins, all of Minneapolis, Minn. The general nature of its business will be buying, selling and dealing in all kinds of contractors' and builders' supplies.



## NEW ENGLAND BUILDERS

Meet in Annual Convention At Boston, February 20.

The second annual convention of the New England Builders' Supply Association was held in Boston at the New American House on Thursday, February 20th. The clans began to gather as early as Wednesday night and all day Thursday new arrivals were noted and the shout of one of the "boys" as he saw an old friend enter was a common occurrence throughout the day in the lobby of the New American House.

In the early morning the executive committee got together and had their annual meeting preparatory to turning their responsible loads over to the new committee, and at one o'clock in the afternoon President Charles M. Kelly, of the J. C. Goff Company, Providence, R. I., wielded the gavel and called the delegates in from the various corners of the hotel. The roll call and reading of the minutes being dispensed with, the following nominating committee was appointed to nominate officers for the coming year: E. A. Wilson, of the E. A. Wilson Company, Lowell, Mass.; Charles S. Paisler, of Paisler & Willis, New Bedford, Mass.; Mr. Muss and Willard M. Petty, of Fall River. This committee was given the necessary instructions and requested to report later on in the session.

A touch of sadness was noted in the faces of many of the members when it was called to their attention that John W. Woodworth, of Woodworth & Company, Concord, N. H., and the vice president from New Hampshire had lately passed away, and a solemn vote was taken that the secretary be instructed to communicate with Mr. Woodworth's family and express the sympathy of the association.

Later on during the session the nominating committee made the following returns, and the officers, as listed in their report were unanimously elected as officers of the association for the coming year:

President—Charles M. Kelly, Providence, R. I.  
Secretary—R. H. Whitney, Worcester, Mass.  
Treasurer—R. C. Cleveland, Worcester, Mass.  
Vice President for Maine—S. M. Hersey, Portland, Maine.

Vice President for New Hampshire—Mr. Dickerman, Concord, N. H.

Vice President for Vermont—F. E. Kimball, Burlington, Mass.

Vice President for Massachusetts—Frank Howard, Pittsfield, Mass.

Vice President for Rhode Island—E. D. Allen, Providence, R. I.

Vice President for Connecticut—Frank H. Johnston, New Britain, Conn.

The afternoon was spent in an earnest consideration of the questions close to the heart of every member and the discussions were entered into with great vim by the members present. It was noted that over fifty-five per cent of the entire membership of the association was present in the room during the meeting, which was a remarkable showing, as these associations go.

Immediately after the business of the day was concluded the members were summoned into the beautiful mahogany room of the hotel, which is one of the show places of Boston, and over one hundred men sat down to a repast, the like of which has made this hostelry famous for many generations.

During the banquet the members were entertained by a talented quartet, who were oftentimes assisted by enthusiastic members from the side lines. The singers were led by Frank H. Johnston, E. S. Larnard, Mr. Clark of Hartford, Conn.; Mr. Drake, of the Atlas Portland Cement Company.

The B. F. Marsh Company, Smith-Green Company and the F. E. Powers Company, of Worcester, Mass., invited the members of the association to hold their next annual convention in Worcester, and it was voted to do so. At that time Worcester dealers are going to play the part of host to the members of the association.

The banquet was followed by a jolly half-hour and then the company adjourned in a body to the Hollis Street theatre, where a production of "The Mind the Paint Girl" was rendered by Miss Billie Burke as the star.

After the theatre various members of the association, having other important engagements at different places, were excused and the second annual convention of the New England Builders' Supply Association came to a close, being voted a huge success.

## ATTENDANCE.

John C. Aspin, People's Coal Co., Lynn, Mass.  
H. A. Beaver, Beaver Coal & Grain Co., Norwood, Mass.

Wm. A. Fuller, Clinton, Mass.  
A. H. Wilbur, Taunton Lumber Co., Brockton, Mass.  
Mr. Clark, Geo. E. Sykes Co., Hartford, Conn.  
Mr. Gilmore, W. K. Gilmore, Inc., Wrentham, Mass.  
Mr. Moses and T. Arthur Denault, New Bedford, Mass.

Mr. Hayes, Timothy Shea, Inc., Springfield, Mass.  
Mr. Hooper, Read Nichols Co., Bath, Me.  
Mr. Hamett, Taunton Teaming Co.  
Mr. Kiersted, Hartford Cement Co., Hartford, Conn.

Mr. Hamett, Newport, R. I.  
Mr. Paisler, Paisler & Willis, New Bedford, Mass.  
E. A. Wilson, Lowell, Mass.  
Geo. L. Gage, Lawrence, Mass.  
F. E. Powers, F. E. Powers Co., Worcester, Mass.  
Thos. H. Early, Thos. H. Early & Co., Providence, R. I.

Mr. Goodrich, Windsor Cement Co., Boston, Mass.  
Mr. Palmer, Eastern Clay Goods Co., Boston, Mass.  
H. W. Bishop, H. W. Bishop & Co., Boothbay Harbor, Me.

H. A. Dewitt, Geo. H. Dewitt & Sons, North Easton, Mass.  
I. Friedman, I. Friedman & Co., East Cambridge, Mass.

E. G. Briek, Springfield Contracting Supply Co., Springfield, Mass.

David W. Lewis, David W. Lewis & Co., Boston, Mass.

Willard M. Petty, Fall River, Mass.

Mr. Kingsley, Borden & Remington Co., Fall River, Mass.

Brenard McTierman, Providence, R. I.

Wm. C. Norcross, Wm. Norcross & Co., Boston, Mass.

Mr. Field, Starrett & Field Co., Boston, Mass.

Mr. Lincoln, Waldo Brothers Co., Boston, Mass.

Mr. Allen, Manchester & Hudson Co., Providence, R. I.

Frank W. Clark, Portland Stone Ware Co., Boston, Mass.

Mr. Howard, Pittsfield, Mass.

F. H. Johnston, of City Coal & Wood Co., New Britain, Conn.

Mr. Fager, Smith-Green Co., Worcester, Mass.

Charles M. Kelly, J. C. Goff Co., Providence, R. I.

R. H. Whitney, B. F. Marsh Company, Worcester, Mass.

Many of these firms were also represented by other members of the firm and by salesmen who came down to renew acquaintance with friends formed in years gone by.

At the banquet and theatre party the following manufacturers were also represented: Alpha Portland Cement Company; Edison Portland Cement Company; Lawrence Portland Cement Company; Lehigh Portland Cement Company; Vulcanite Portland Cement Company; Whitehall Portland Cement Company; United States Gypsum Company; New England Lime Company; Farnam Cheshire Company; Wm. G. Hartranft Cement Company; Knickerbocker Cement Company; Rockland-Rockport Lime Company; Windsor Cement Company; Portland Stone Ware Company.

## NEW WAREHOUSE.

We print on this page a portrait of the new building of the John Mueller Co., Lockland, Ohio, which recently became successors to John Mueller. The business was founded in 1882 by Mr. Mueller to handle builders' supplies, and at the present time it is capitalized at \$50,000. Mr. Mueller recently stated to a representative of ROCK PRODUCTS that the business situation for the coming year is very good. He was recently elected first vice president of the Ohio Builders' Supply Association which held its convention at Columbus a few weeks ago.



NEW PLANT OF THE JOHN MUELLER CO., LOCKLAND, OHIO.

## BUILDING ACTIVE IN ALL SECTIONS.

Building permits were taken out in February in 78 principal cities according to official reports to CONSTRUCTION NEWS for 13,384 buildings, involving a total cost of \$50,680,837, as compared with 13,445 buildings aggregating in cost \$46,692,063 for the same month a year ago, a decrease of 59 buildings and an increase of \$3,988,774, or 9 per cent. There were gains in 44 and losses in 34 cities. The figures in detail are as follows:

Cities	No. of Bldgs.	1913 Estimated Cost	No. of Bldgs.	1912 Estimated Cost	% Gain	% Loss
New York (Boros Man. and Bronx)	294	\$10,964,760	269	\$ 7,739,540	42	..
Chicago	464	4,684,480	443	3,777,100	30	..
Boston and vicinity	183	3,333,000	188	4,083,000	30	18
Brooklyn	675	2,294,880	683	1,894,467	21	..
St. Louis	451	2,121,693	480	1,908,164	113	..
Dayton	450	2,012,250	34	41,150	4,468	..
Detroit	434	1,567,790	292	4,399,880	..	44
Los Angeles	1,027	1,511,471	891	1,676,258	..	13
Philadelphia	777	1,468,580	775	472,540	210	..
Birmingham	250	1,414,651	246	9,022,385	..	39
San Francisco	454	1,367,333	217	814,674	537	..
Cleveland	490	1,298,450	514	1,764,352	..	26
Newark	159	1,148,755	292	389,580	290	..
Jacksonville	116	1,094,009	144	475,432	127	..
Pittsburgh	196	876,185	98	165,991	43	..
Baltimore	397	769,161	206	262,147	113	..
Portland, Ore.	536	733,125	272	535,070	36	..
Pasadena	93	690,240	819	1,188,176	..	39
Washington, D. C.	289	664,534	94	165,195	391	..
Oakland	301	631,283	395	1,131,876	..	14
San Diego	318	594,814	408	518,579	18	..
Louisville	172	575,840	414	494,688	16	..
Milwaukee	119	553,320	143	999,680	..	45
Kansas City	249	518,856	83	430,026	21	..
Indianapolis	311	486,000	366	990,110	..	50
Rochester	152	479,653	126	83,040	485	..
Dallas	184	463,024	111	644,676	..	28
Houston	231	434,460	168	325,320	38	..
Toledo	101	433,998	395	957,538	..	55
New Orleans	101	406,280	49	236,917	71	..
Minneapolis	205	387,906	275	149,043	10	..
Buffalo	173	361,590	131	330,555	9	..
Cincinnati	737	347,000	121	1,225,000	..	72
Richmond	65	346,832	436	390,324	..	14
Norfolk	79	339,684	89	357,691	..	5
Springfield, Mass.	42	317,359	85	285,000	..	8
Memphis	253	284,400	50	327,000	..	59
Omaha	80	248,475	986	609,221	..	59
Columbus	130	236,988	66	219,195	71	..
St. Paul	131	235,890	74	210,232	1	..
Denver	90	218,686	187	299,994	..	12
Akron	78	213,600	168	446,500	..	58
Worcester	57	188,161	51	58,475	223	..
Tampa	105	181,508	92	115,510	59	..
Berkeley, Cal.	95	176,244	103	119,327	80	..
Peoria	15	168,000	76	112,800	43	..
Nashville	89	157,640	2	3,890	483	..
Sacramento, Cal.	87	155,760	42	71,008	122	..
Paterson, N. J.	43	146,728	48	108,465	36	..
Grand Rapids	56	144,345	45	71,519	109	..
Tacoma, Wash.	145	142,500	58	157,555	..	19
Chattanooga	148	139,591	101	111,948	24	..
San Antonio	219	134,858	169	387,410	..	63
Stockton	41	127,290	271	171,810	..	85
Cedar Rapids	22	112,671	38	80,475	40	..
Salt Lake City	48	106,040	15	116,000	..	13
New Haven	50	101,950	32	116,790	..	38
Sioux City	39	98,085	00	158,965	..	86
Duluth	52	93,650	43	32,723	184	..
Wilmington	50	83,500	61	114,630	..	27
Fort Wayne	36	75,866	30	32,238	126	..
Scranton	41	72,000	15	87,800	..	16
Evansville	54	69,720	96	144,700	..	56
San Jose	41	58,865	50	24,614	14	..
Lincoln	28	53,353	41	39,108	28	..
Youngstown	29	49,200	11	17,750	178	..
Springfield	27	47,360	71	308,625	..	86
Harrisburg	19	44,720	95	24,010	86	..
St. Joseph	44	42,675	95	58,875	..	56
Charlotte	38	40,115	23	19,235	109	..
Portland	13	37,375	23	45,000	..	12
Topeka	24	32,930	29	30,085	9	..
Oklahoma City	18	25,970	35	27,075	..	4
Colorado Springs	14	25,400	12	45,385	..	41
Wilkes-Barre	26	23,400	36	40,290	..	38
Terre Haute	19	22,820	98	113,805	..	50
Davenport	8	18,940	11	4,867	73	..
South Bend	8	14,295	4	11,800	21	..
		5,960	4	8,870	0	..
	13,384	\$50,680,837	13,445	\$46,692,063	9	..

The figures reveal a most satisfactory state of affairs. It is not a case of different sections of countries but of cities. There were some notable increases, the gain in New York being 42 per cent, Chicago 30, Brooklyn 21, Dayton, Ohio, 4,458, Seattle 210, Birmingham 537, Cleveland 200, Newark 127, Jacksonville 42, Pittsburgh 112, Baltimore 36, Pasadena 301, Milwaukee 21, Indianapolis 483, Dallas 28, Toledo 71, Minneapolis 9, Omaha 11 Columbus, Ohio, 7, Akron, Ohio, 222, Worcester 61, Tampa 80, Berkeley, Cal., 43, Nashville 122, Sacramento 36, Paterson, N. J., 102, Tacoma, Wash., 24, Stockton 40, Sioux City 184, Wilmington 126, Evansville 14, San Jose 36, Lincoln 178, Springfield 66, St. Joseph 109, Portland 9, Terre Haute 73, Davenport 21.

The losses were in widely separated sections of the country and with no particular reason other than a normal condition of affairs. For example there was a loss in Boston of 18 per cent, Detroit 64, Philadelphia 30, San Francisco 26, Portland, Ore., 29, Washington, D. C., 44, Louisville 45, Kansas City 50, Rochester 28, Houston 55, Buffalo 12, Cincinnati 14, Memphis 59, St. Paul 12, Denver 52, Grand Rapids 10, Chattanooga 63, Stockton 40, Cedar Rapids 8, Salt Lake City 13, New Haven 36, Duluth 27, Fort Wayne 18, Scranton 51, Youngstown, Ohio, 56, Harrisburgh 56, Charlotte 12, Topeka 4, Colorado Springs 38, Wilkes-Barre 80.

C. E. Lindsley Company, Irvington, N. J., \$50,000; to deal in building materials. Incorporators, Clarence E. and Ida Lindsley and Robert Jamison.

The Huffman Salvard Roofing & Paint Company, Inc., Birmingham, Ala., has filed notice in the probate court that the capital stock had been increased from \$10,000 to \$25,000.

The E. D. Vanderbilt Co., Hoboken, N. J.; deal in gravel, broken stone, mason and building supplies, etc.; capital, \$50,000. Incorporators, E. D. Vanderbilt, F. Schill, H. H. Vanderbilt, Hoboken.



NATIONAL BUILDERS' SUPPLY ASSOCIATION.

Meets Annually.

## OFFICERS.

President, E. S. Walton, Youngstown, Ohio.  
 Secretary, Ralph Dinsmore, Wilmington, Del.  
 Treasurer, H. V. Classen, Baltimore, Md.

## NEW YORK STATE DEALERS' ASSOCIATION.

The New York State Dealers' Association will hold its annual meeting in Syracuse on March 27, at which it expects a large attendance. The association has recently made great strides in the way of increasing its membership and expanding the influences of the body, under the guidance of George D. Elwell, who has devoted considerable thought and energy along this line.

## CHICAGO RETAILERS.

Chicago, March 21.—Reports from builders' supplies dealers through the city reflect most flattering prospects for exceedingly active business in building lines in Chicago this year. More work has been done so far this month excavating for putting in foundations for flat and store buildings in practically all sections of the city than in the past at this period of the year. This is especially noticeable in the north and northwestern divisions of the city, where flat buildings in greater number than ever before in one season will be erected this summer. Contractors are more busy than they anticipated, figuring on work which will be vigorously prosecuted as soon as the weather settles. Builders' supplies dealers this month have kept their teams fairly busy hauling material on days during bad weather, and on bright days during the month have been necessitated to hire extra teams to make prompt deliveries. This condition indicates to them that when the building season opens, not more than two weeks hence, the demand for cement, lime, plaster, etc., will exceed that of preceding years and they will face a period of great activity which may reach the proportions of a boom. The opinion is expressed everywhere in the trade that prospects never looked brighter for splendid business than they do at present.

Business at all the yards of the Wisconsin Lime & Cement Company, located at various points in the three divisions of the city, was reported good for this time of the year. The demand for building material is rapidly increasing at the approach of the opening of the season, and it is said that indications point to great activity in building circles this summer. Teams in these yards are commencing to get busy, and when the weather permits building operations to begin it is expected that the summer months will develop an activity producing more satisfactory conditions than existed last year.

Walter L. Woods, of the Standard Material Company, at Sixty-sixth street and Lowe avenue, had the following to say concerning conditions in the trade this month: "We cannot complain about business. We are fairly busy and everything points to much work this summer. Prices for material are good and the demand brisk. There will be much building in this territory as soon as the weather settles. Our teams are all busy and on bright, mild days we are obliged to hire extra teams. Contractors talk good about work that is offered them on which they are busy figuring and expect to have all the work they can handle, which will keep them jumping to the end of the year. Prospects never looked brighter for the builders' supplies dealers than they do this year."

W. R. Lamoreaux, superintendent of the yard of the Lake Building Material Company, at Forty-seventh and Leavitt streets, said: "While business at present is somewhat quiet, prospects were never brighter than they are now for an active summer season. Preparations in the way of putting in foundations for flats, residences and store buildings in this territory are proceeding with greater activity than usual and contractors feel happy. We are keeping our teams busy to make prompt deliveries, with all indications pointing to better conditions than we experienced last year."

At the office of the Tuthill Building Material Company it was reported that business was rather slack and has just enough material to handle to keep their teams going. There was, however, every indication that the coming building season will be one of the most active Chicago dealers have experienced in years; that in the territory of the company's yard, 131 West Sixty-third street, many foundations are being put in in the last four weeks and a larger number of flat buildings will be erected with the opening of the building season than there were last year at this time. Contractors are very busy figuring on work offered them, and conditions look very promising.

T. M. Tobin, of the T. M. Tobin Brothers Company, 9326 South Chicago avenue, said: "There is very little activity in building circles in South Chicago and we find business up to the present time slow. We do not expect a change in these conditions to improve much before next month, when the season opens. Conditions are not bad and there are indications favorable to brisk business a little later on."

The builders' supplies yard opposite the Cheltenham depot of the Illinois Central railway, operated by the Ringer Brothers, is doing a fair business. There is not much building going on in this territory, which is accounted for by unsettled weather conditions.

C. D. Russell, of the E. C. Donnellan Lumber Company, Eighty-eighth and Erie streets, said: "There is some little improvement noticeable in business over that of last month. Building operations are not as active as we expected them to be at the present time, but a change for the better is in sight and indications point to a bright outlook for this summer and fall."

The Waukesha Lime & Stone Company, at Devon avenue and Sheridan road, is doing a good business this month. It reports building operations starting up in good shape and that contractors all feel very optimistic, as much work for erecting flats, residences, stores and small theaters has been offered them, on which they are now busily figuring. Conditions are considered healthy and they can see much work in sight to be done by dealers, delivering builders' supplies the coming summer.

Continued good business is reported at the yard of Astried S. Rosing, 1128 Cornelia street. In this territory there will be many flats erected this spring, and from present indications building operations will be more extensive than last year. Conditions in general in the builders' supplies trade are exceedingly good and prospects bright for great activity this summer and fall.

Arthur Druecker, of N. J. Druecker & Co., 2634 Artesian avenue, said: "This month business shows an improvement over that of last month, and is fair. Contractors report building operations looming up in decidedly better shape than last year and that many flat buildings will be erected in this territory early in the spring. Conditions are favorable and prospects fine for splendid business this year."

Alfred Frerk, of Henry Frerk Sons, 1135 Belmont avenue, said: "For this time of the year we have no complaint to make concerning business. We keep our teams busy and are delivering more material than last month. There is more building going on in our territory than last year at this time. We have every reason to expect an exceedingly active season this summer."

Paul E. Lambe, of Koch & Lambe, 4601 Armitage avenue, said: "While things have improved some over last month, business still is quiet. We can say that we are just busy—could do lots more. Indications point to large business this summer. There is much building in this territory and contractors see more work in sight than they have seen for many years. Prospects are decidedly bright."

## NEW YORK MATERIAL SITUATION SEASONABLY QUIET.

New York, N. Y., March 18.—The Board of Estimate has authorized the issuance of corporate stock to the extent of \$3,000,000 for the repaving of streets, distributed as follows: Brooklyn, \$1,000,000; Manhattan, \$1,000,000; the Bronx, \$350,000; Queens, \$350,000; and Richmond, \$300,000.

E. B. Morse, of the Frank B. Morse Company, remarked as follows in regard to the local building materials market: "The building materials market is quiet at the present time, but dealers are preparing for the spring business which is expected during the next month or two. Reports from the different sections of the city show an optimistic feeling concerning the early spring demand. The open winter has enabled work to be started on many foundations, whereas this time a year ago there was frost in the ground to the depth of six or seven feet. Cement is quoted from 90 to 95 cents, and I would not be surprised if it went higher.

Indications point to a good business during the coming season."

Oliver F. Perry, ex-president of the New York Lime Manufacturers' Association, reported the lime situation as follows: "The local lime market is quiet at present and manufacturers are getting ready for the spring business. Lime has been delivered all winter, as inside work has been progressing with little interruption. Prices are expected to be advanced in the near future for the better grades on account of the increased cost of manufacturing. The prospects for a good business during the building season are bright."

At the offices of the Pennsylvania Cement Company it was reported that the Portland cement situation is at the present moment quiet, but from inquiries received the outlook for the spring demand is very bright. Manufacturers are quoting from 90 to 95 cents at mill, in bulk, and many predict that before the summer months it will reach the dollar mark. Business has been of a larger volume during January and February than during the corresponding time last year. This company has received the contract to supply one of the Lexington avenue sections of the subway with cement and will deliver some 1,000,000 barrels during the course of construction. It also delivered about 200,000 barrels to the Brooklyn section, which has been recently completed. They are of the opinion that a greater amount of cement will be used this year than in 1912.

## PITTSBURGH RETAILERS.

Pittsburgh, Pa., March 19.—At present retailers are waiting chiefly on the weather. Although the winter has been unusually warm, there is a considerable amount of work almost ready for starting now that is waiting on a little sunshine. Road contracts as a rule have not come forward yet for estimates. There is going to be a large amount of this work done this summer both in the immediate Pittsburgh district and throughout Pennsylvania, and stonemen are looking for some big contracts soon. In many lines of builders' supplies sales have been pretty good all winter, especially in sewer pipe and paving brick, for the improvements authorized by the city have been going ahead with little let-up since last fall. The prospects all around for a big year's business are very much better than at any time since 1907. Road men especially who travel the Tri-State territory outside Pittsburgh report the outlook as very favorable indeed. Stocks have been fair to good this winter and retailers did not carry over a large amount of stock to hamper them in making good purchases this spring.

Knox, Strouss & Bragdon, from the North Side, report things a little quiet just now, although prospects are excellent for a good spring business later on. Their trade this spring will cover a wide range of building supplies.

The William T. Liggett Company has been having a fine business lately in sewer pipe. The weather has favored these operations all winter and as they make a specialty of this line they are very complimentary in their remarks about the weather man.

The Builders' Supply Dealers' Association of Pittsburgh held its monthly meeting at the Fort Pitt hotel a few days ago. This is one of the most aggressive organizations in the city and is growing every month.

The D. J. Kennedy Company, with its three big yards, is getting ready for a large spring business. It has taken over some very nice contracts the past few months.

Houston Brothers Company reports that yard business made a gain of 100 per cent over last February. The open winter has been exceptionally favorable to street work they say. Their sales of cement and clay products have been very good all winter. Prices are up and getting still higher. The car shortage has hindered them somewhat in their shipments but these are going forward nicely now. While the gain in city yard trade has been considerable, it has not been as much as this concern notes in its dealings with the country yards.

The People's Roofing & Supply Company, Akron, Ohio, \$5,000; William L. Ehrle and others.

Hossier Brick, Tile and Grain Company, Moore, Dekalb County, Ind., capital \$10,000; to operate brick and drain tile factory and to do general grain, coal, seed and brick business; directors, Martin E. Klingler, Harry C. Bruce, George P. Whan.

Arrowhead Manufacturing Company, St. Louis, Mo.; capital stock, half paid, \$5,000. Incorporators, John F. Renick, 20 shares; August F. Schuermann and Julius Collins, 15 shares each. To manufacture, buy, sell and deal in lime, cement, plaster and general building.



## LOUISVILLE RETAILERS.

Louisville, Ky., March 18.—The report of Building Inspector Robert J. Tilford for the month of February bears out an optimistic view of the situation. Building permits taken out during the month aggregated \$547,809. Those issued in the same period in 1912 totaled \$999,680. However, the difference in favor of 1912 is accounted for by the fact that the new City Hospital was included. This amounted to \$881,000. Excluding it, the current year has a big edge on 1912. The number of permits issued both in February, 1913 and 1912, were the same—143. With the exception of the City Hospital, however, those taken out recently far surpass those of last year.

The Swartwout blower ventilator is a new line now handled by Owen Tyler, a well-known supply man of Louisville. The ventilator is manufactured by the Ohio Blower Company, of Cleveland, Ohio. Mr. Tyler has been given the agency for the entire state of Kentucky and will appoint agents in territory outside of Louisville.

Warren Brothers is the style of a new supply firm which has been established here, with quarters at 306 West Main street. G. S. and Harry Warren are members of the firm. Both are veterans in the trade, though young in age. Guy S. Warren formerly was manager of the southern branch of the Chicago Builders' Specialty Company. Harry Warren also has been in the supply trade, having been connected with George T. Cross, a supply dealer of Louisville. The new firm will specialize in contractors' fireproofing specialties.

The R. B. Tyler Company, which is now located in the Lincoln building, is planning an extension of its business and has leased a building on Fourth street, just south of Main, for its storerooms. The company has taken three floors, composing the building, and will make alterations necessary to the best results. The new quarters will be occupied about April 1. The company now is about three years old. It will handle in the future, as in the past, full lines of supplies, crushed stone and brick.

The Sam F. Troxell Company has submitted bids on a number of important contracts recently, and expects to land several of the jobs. The company is doing comparatively little actual work. The repair season is about over, and Mr. Troxell is much pleased with the results attained, which were much better than any previous year. The company has been forced to postpone work on the western driveway to the new Kentucky and Indiana bridge, owing to the tardy operations of the company which is razing the old structure. Mr. Troxell will finish up the contract some time in May.

Breese Brothers, of Cincinnati, have established a Louisville branch, placing W. Y. Howard in charge. Mr. Howard has taken quarters in connection with the Builders' Exchange, in the Realty building, and is now getting down to active work. Mr. Howard has represented Breese Brothers in various sections of the country, but is more impressed with Louisville than any other city he has visited for a long time. "The possibilities seem to be unlimited," asserted Mr. Howard. "The city is growing steadily, yet not too fast, and I regard it as one of the coming commercial centers."

To provide for its increasing volume of business the Central Paint & Roofing Company has increased its capitalization from \$10,000 to \$30,000. Headed by L. M. Rice, the concern is expanding rapidly and is taking a place in the front rank of supply houses of Louisville. The company, according to its previous intentions, has taken on several new lines recently, including more than thirty brands of shingles. Mr. Rice announced that the company was giving most of its time to dealers at present, allowing contract work to take care of itself.

The Louisville Roofing & Supply Company finds asbestos boiler coverings its leading business puller at present. This line has been strong enough to carry the company over what is regarded as the dull period in good shape. With others the company is bidding actively on many of the new contracts which are to be awarded shortly. The company handles both prepared and built-up roofings, selling them under its own brand.

The National Roofing & Supply Company has already secured enough work to keep it busy for the next couple of months. Other jobs are in prospect and the company is assured of a prosperous season. Among the contracts on which work already has begun is the roofing work on a new tobacco warehouse being erected for Lorillard & Co., at Carrollton, Ky. The roof will be of pitch and gravel, about fifty squares being used. The new repair shop of the Louisville & Nashville railroad, now being erected at DeCourcy, Ky., will require about ninety squares, pitch and gravel.

George F. Meldrum, secretary of the Union Cement & Lime Company, Louisville, Ky., for the past twelve years, has resigned that position, being succeeded by Farris A. Sampson. Mr. Meldrum,

who is one of the most prominent members of the lime and cement field of this city, has joined his brother, Overton Meldrum, in the public accounting business, being located in the Keller building. F. A. Sampson, the new secretary of the company, is a stranger to the building trade, having been secretary of the Louisville Anti-Tuberculosis Association for several years. He is making a thorough study of his new business and is developing rapidly. John L. Wheat, president of the company, is again at his desk after being confined to his home for several days by a severe attack of the grip.

## NEW PLANT OF TRUS-CON LABORATORIES.

The illustration on this page shows the new reinforced concrete plant which has just been completed by the Trus-Con Laboratories at Detroit, Mich.

The building trade and the building supply dealers throughout the country are quite generally familiar with the very strong and complete line of waterproofing compounds, dampproofing materials and technical paints which have been manufactured under the "Trus-Con" brand for several years past and upon which a wide market and enormous business have been developed.

The Trus-Con chemical products are handled and used by many of the readers of this publication, who with others who might have use for products of their kind will be interested in learning of the new manufacturing facilities and the increased output which this hustling organization is affording through its new Detroit manufacturing plant.

The trade quite generally has found the Trus-Con line to be a very excellent one to handle, for the reason that the goods are not only of the highest efficiency and sell on a strictly quality basis, but also because the materials are furnished at a fair and reasonable price to the consumer, and with due consideration to ample profit for the dealer.

A particularly potent factor in the steady and rapid growth of the Trus-Con line, as handled by the dealers, as used by the contractors, and as specified by the architects and engineers, is the completeness of the line and the very many different products for dampproofing, waterproofing and painting purposes.

The line embraces somewhat over twenty regular products and quite a few specials to meet peculiar and unusual conditions. Dealers who are now co-operating with the Trus-Con Laboratories in pushing this line of materials advise that there is a wonderful advantage in being able to supply all the necessary requirements in the field under one brand, instead of having to carry one kind of waterproofing, another kind of dampproofing, and still another kind of technical paint, as has heretofore often been the case.

Furthermore, the dealer is afforded unusually strong co-operation by the technical staff which comprises the Trus-Con Laboratories force, and by the very heavy and persistent advertising which the Trus-Con goods are afforded in the trade papers as well as in the general monthly and weekly magazines of national circulation.

Among the most prominent Trus-Con materials are the Trus-Con Waterproofing Paste Concentrated, an integral waterproofing compound of extremely low cost; Trus-Con Plaster Bond, the use of which eliminates the necessity of furring and lathing; Trus-Con Foundation Coat, a black dampproof dressing for application to the outside of foundation; Trus-Con Ironite Flooring for ironizing and hardening cement floor topping; Trus-Con Por-Seal, a colorless dampproofing for application to concrete,

brick, cement block and cut stone walls above grade; Trus-Con Stonetex, a dampproof cement coating made in a variety of pleasing colors for use on exposed walls of concrete, stucco, brick, etc., for both decorative and protective purposes; Trus-Con Floor Enamel, for dustproofing and giving a tough washable surface to cement floors; Trus-Con Asepti-cote, a washable coating for interior walls of plaster, brick, cement, wood, metal, etc.; Trus-Con Shingle Stains, furnished in a very pleasing selection of color effects; Trus-Con Roof-Seal, a bituminous coating supplied in several colors, for protecting roofs of shingles, metal, felt, etc.; a very complete series of metal coatings for different purposes, called Trus-Con Bar-Ox; and several other interesting and good selling products.

The Trus-Con Laboratories have always set a very high standard in the kind of literature and advertising matter which they supply to their dealers, as well as adopting a high standard for their goods. The large Trus-Con Handbook is undoubtedly a most complete text of its kind and covers in a very generous and careful manner waterproofing and dampproofing problems of all kinds. The book is profusely illustrated and contains some fine general information, some splendidly written specifications, and many interesting reports and references, with considerable figuring data. The various color cards concerning some of the Trus-Con coatings are also better than is usually the case, and very clear and concise in the information afforded.

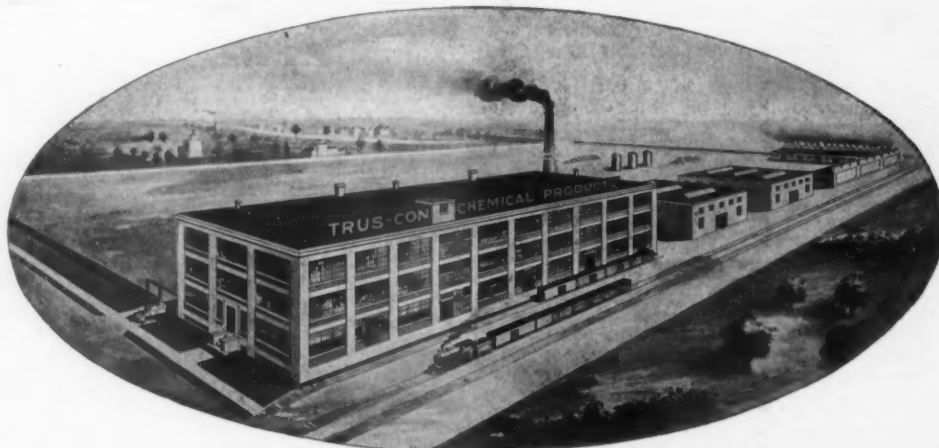
There are a few of the good cities and towns where definite agency arrangements have not as yet been concluded for the Trus-Con products, and those places still open allow an excellent trade connection for a live dealer or distributor in each town. It has been the policy of the Trus-Con Laboratories to work on a mutually exclusive basis with the dealers, having one dealer to a territory and giving to that dealer and receiving from him individual co-operation and attention.

Inasmuch as territory is now closed in a good many of the important points, and as it is being quickly closed where still open, it would be well for dealers who are interested in connecting with the Trus-Con line and taking advantage of their generous dealers' proposition to get in touch with the Detroit office at once.

The Trus-Con advertising campaign for the current year is being carried on in a most aggressive and energetic manner, both by very free use of advertising space in various magazines and trade papers, as above mentioned, and also by very heavy mailing of circulars, folders, etc., direct to architects, contractors and owners. Hundreds of dealers throughout the country are now strong exponents of the Trus-Con line and the excellent treatment afforded by the Trus-Con Laboratories. The simple fact that they have been compelled to erect for this season's business the large building pictured herewith shows that the line is well grounded and growing constantly in its use and popularity.

Customers and others interested are always welcome at the Trus-Con plant, which is in every way a model both in construction and equipment. The building is of Kahn System design, with United Steel windows, affording the maximum amount of light and ventilation.

The J. W. Dolan Company, Inc., of Valley Stream, L. I., N. Y., has been incorporated with capital of \$10,000, to deal in brick, lumber, etc. Incorporators are John W. Dolan, Harold J. Dolan and M. I. Dolan, all of 104 Johnson avenue, Richmond, L. I., N. Y.



NEW PLANT OF TRUS-CON LABORATORIES.



**BUILDING MATERIAL CONDITIONS.**

There is no fundamental change in business conditions as they relate to the building material market. The time is about over for the situation to display its weakest features, and the manufacturer may congratulate himself that not many weak features have come to light. While it is quite true that the immediate demand for material both from the retailers' and manufacturers' view point has let up considerably, the fact remains that inquiries for stock for later deliveries are developing in a way that indicates that the demand will exceed the supply in two or three lines.

Manufacturers are advising prospective users of building materials not to stay out of the market too long. The low mill stocks and an exceptionally heavy Western demand at present for such commodities as structural steel, tin plate, nails, lumber, including shingle and lath, metal lath and reinforcing-material, terra cotta, front brick and paints, not to mention the heavy demand that is expected to develop in the Eastern market as soon as the new building season strikes its pace, make it advisable that those who would take advantage of existing conditions get into the market on present levels wherever this can be done.

Ed Fraser, the old reliable war-horse warehouseman of the Fischer Lime & Cement Company, Memphis, Tenn., who is the whole works of the big No. 3 warehouse of that concern, says he had rather miss his dinner than his monthly copy of ROCK PRODUCTS, for he has been a regular subscriber since the first issue of the paper. He says the big flood waters of the Mississippi have receded with practically little damage in the immediate vicinity of Memphis, and that the prospects for spring business was never better. "We are at the post ready, just waiting for the flag, and I want to say that when we are off there is going to be something doing down at No. 3; for in our immediate neighborhood the city street contracts are thick and numerous and that means plentiful orders for crushed stone, cement and sewer pipe. The Fischer Lime & Cement Company has just completed the delivery of ten cars of sewer pipe in sizes of 27-inch, 24-inch, 20-inch and 18-inch to be used in street improvement work. No. 3 warehouse is about filled with a complete line of materials in our line and this past season we have done a heavy business in our own brand of 'King Fisher' roofing. I am going to send you a description soon of the new No. 3 warehouse of the Fischer company, which is to be built of concrete throughout."

At the annual meeting of the stockholders of the Security Cement & Lime Co., Hagerstown, Md., which was held on March 13 at Baltimore, the following gentlemen were elected to serve for the ensuing year: President, Charles Catlett; vice-president, Charles Warner; secretary and sales manager, Harry B. Warner; treasurer, Loring A. Cover. Chairman of the board, Allen W. Paige. Directors, De Courey W. Thom, Douglas H. Gordon, Samuel C. Rowland, Wm. G. Nolting, R. N. Jackson, Horatio L. Whitridge, J. A. Mason, W. C. Robinson, Charles Catlett, Charles Warner, A. D. Warner, Sr., Allen W. Paige, Loring A. Cover and Harry B. Warner. The company did a substantial volume of business the past year and prospects for 1913 are such as to warrant it in anticipating the largest and most profitable season in its history. Every department of both the company's plants are in the highest working order and the greatest efficiency of service may be expected from them.

The Fleming-Hahn-Platt Company, Youngstown, Ohio, general contracting, builders' supplies; capital stock, \$50,000; Martin Fleming, William P. Platt, Clara C. Platt, Dale R. Hahn and Ida M. Hahn.

The Henry Cowell Lime & Cement Company, San Francisco, Cal., is now running all its lime plants full blast and reports an unusually good business for this season. Regarding barrels for lime, this company states that it can make them more economically than to buy them in the market, sending men into the woods to split staves on contract. Used barrels returned are valued at 15 cents, and most of them can be used over several times.

Last month's building activities in the larger cities of the Pacific coast were hardly up to expectations. The valuation of building permits in San Francisco was \$1,298,450, compared with \$2,062,001 for January and \$1,764,252 for February of last year. In Los Angeles and Portland, Ore., the decrease was about half a million. The smaller towns made a better showing, the figures being below those of January but much better than for February, 1912.

# Concrete

**NATIONAL ASSOCIATION OF CEMENT USERS.**

Meets Annually.

**OFFICERS.**

Richard L. Humphrey, Philadelphia, Pa., President.

Arthur N. Talbot, Urbana, Ill., Vice-President for two years.

L. C. Wason, Boston, Mass., Vice-President for one year.

H. C. Turner, New York, N. Y., Treasurer.  
Edw. E. Krauss, Philadelphia, Pa., Secretary.**DIRECTORS FOR TWO YEARS.**

First District—W. L. Church, Boston, Mass.

Fourth District—W. P. Anderson, Aucumato, N. J.

Fifth District—B. F. Affleck, Chicago, Ill.

**DIRECTORS FOR ONE YEAR.**

Second District—E. D. Boyer, New York, N. Y.

Third District—E. L. Rausonie, Dunellen, N. J.

Sixth District—Chas. Derleth, Berkeley, Calif.

**LOUISVILLE CONCRETE NEWS.**

Louisville, Ky., March 18.—E. E. Peterson is now sole head of the E. E. Peterson Construction Company, of this city. W. P. Heeb, who has been a member of the firm since its formation several years ago, has dropped out of the concrete business. He plans to devote all of his time to the real estate business, in which he has been interested for some time. Mr. Peterson will take over all accounts and claims and be sole proprietor, as stated.

The scheduled meeting of stockholders of the Central Concrete Construction Company, which was to be held early in March, has been postponed, but will be brought up in the near future. The chief problem of stockholders is to fill the vacancy of vice-president and general manager caused by the death of Percy B. Hudson. Secretary Wintersmith has handled much of the work recently, and may be elevated to the management of the company. Work on the Mercantile building at Fourth street and Broadway is being pushed, and the structure will be completed in another month.

Six concrete water filtration basins are to be constructed in the filtration plant of this city in Crescent Hill shortly, plans now being in charge of Theodore A. Leisen, chief waterworks engineer. The six basins will join the same number now in use, the dozen having a total daily capacity of 42,000,000 gallons of filtered water. The water board is well fixed financially, having a clean bank balance of \$400,000.

Sealed bids will be received shortly by the Gray Robinson Construction Company, of West Baden, Ind., for the construction of a reinforced concrete reservoir holding approximately one-half million gallons of water, together with a reinforced combined pumping station and filter room. All bids are to be accompanied by a check for 10 per cent, which will be forfeited for failure to take up contract if won.

Among contracts secured by the American Concrete Construction Company recently is one for sidewalk construction for the city of Louisville. It amounts to slightly over \$1,600. Other work is on hand with the American, which is going ahead with all in good shape.

Though directors and officers of the Unit Brick & Tile Company are still considering the establishment of a plant for the manufacture of concrete bricks in Kentucky, the project is at a standstill. Various sites are being considered, and it is expected that some definite announcement will be forthcoming shortly.

The Glendale (Ky.) Lumber Company will shortly begin the manufacture of concrete bricks, blocks and windowsills, as well as other articles of concrete, having purchased the necessary equipment. The machinery is now being installed and manufacture will begin early in April.

That the progressive agriculturists of Kentucky recognize the advantages of silos, especially those made of concrete, is indicated by the way in which many are taking hold of the innovation. Among those who are installing silos on their farms is Senator R. L. Hubble, of Danville, Ky. Senator Hubble has quite a record for efficiency in the agricultural line and is rapidly climbing toward 100 per cent by the use of a concrete silo which will be put into use April 1. The senator is preparing to feed a big number of beeves for the market.

**CONCRETE MEN OPPOSE NEW ORDINANCE.**

Milwaukee, Wis., March 17.—An ordinance, regulating the concrete block business, recommended by the building code commission, and now before the judiciary and building and grounds committee of the common council, is meeting with objections from the concrete men. A large delegation of concrete men and their attorney, Walter H. Bender, recently appeared before the council committee and offered the following objections:

That concrete blocks twenty-one days old shall be made to test 700 pounds to the square inch. The objectors ask that the time be made twenty-eight days instead.

That the aging of blocks be not required for basements of frame buildings, and that instead it be permitted to use blocks ten days old that test 350 pounds to the square inch.

That instead of marking their blocks with the names of manufacturers, date of make and the proportion of materials, the manufacturers of blocks be regulated by licensing the makers.

The Milwaukee county board committee on highways and bridges has awarded contracts for furnishing 100,000 barrels of cement to the county to be used in road making to the Universal Portland Cement Company, of Chicago. The contract was awarded on a bid of \$175,000, of which amount \$40,000 will be returned to the county for the return of the cement sacks. It is said that the county saved \$5,000 by accepting the bid, because two hours after the bid had been accepted the price went up 5 cents a barrel.

If the bill which has been introduced in the Wisconsin legislature by the officers of the Lake to River Road Association and the Oconomowoc-Milwaukee Road Association passes, concrete will be used extensively in the construction of these arterial roads. The present proposal is that these roads shall have a concrete foundation not less than twelve feet wide, with a shoulder of less durable material three feet wide on each side. Building by contract, with a five-year guarantee of the work, is one of the suggestions that will be offered the legislative committee before which the bill will appear. It is hoped to have the state pay four-fifths of the cost of the roads, the counties through which the roads are to pass to pay the remaining fifth.

The Milwaukee Hardware Manufacturing Company has taken over the patents and patentable inventions of L. W. Ashley, among them a reinforced concrete steel tie.

**BUILDING CONCRETE ROADS IN IOWA.**

Des Moines, Iowa, March 20.—The Marsh Engineering Company, of Des Moines, has been awarded the contract for the erection of a \$12,000 concrete bridge across the Maple river near Ida Grove. The plans call for a bridge 212 feet long with two 80-foot arches.

The Cement Products Company has been formed at Marcus, to manufacture cement blocks, drain tile and brick. A concrete block building will be erected in the spring to be used for factory purposes. C. A. Sylvester is president and general manager.

The Wayland Cement Tile & Block Company has purchased the Keve Lumber Company yard at Wayland and has been reorganized. It will be known as the Wayland Lumber & Tile Products Company.

The city council at Burlington has ordered a block on Marietta street paved with concrete.

The twelve business houses in Mason City which were destroyed by fire the middle of January will be replaced with concrete structures from two to four stories high, if present plans are carried out.

A mile of concrete road will be laid from Mason City toward Clear Lake in the spring. It will be 16 feet wide and it is planned to ultimately build the road the entire distance of ten miles between Mason City and Clear Lake.

A committee from the Real Estate Association at Sioux City has made a report on a projected paving from Sioux City north to the Plymouth county line and northwest to the Sioux bridge, recommending a concrete pavement 16 feet wide. The committee estimates the cost at \$1.25 a yard, or \$11,000 a mile.

**IOWA CEMENT USERS MEET.**

Iowa Association of Cement Users elected the following officers at the recent convention at Mason City: Fred Wilson, Mason City, president; A. S. Tanner, Jefferson, vice president; S. H. Brown, Lakeview, second vice president; H. H. Dean, Glenwood, secretary; K. C. Gaynor, Sioux City, treasurer.

## ILLINOIS CONCRETE NEWS.

Springfield, Ill., March 20.—Carl S. Tritsch, 37 years old, a concrete block manufacturer, died recently at Beardstown.

L. B. King has purchased the interest of his partner in the concrete construction firm of King & Ystrom at Champaign.

H. H. Wessler, of Arenzville, was awarded contract for a concrete bridge near Bluff Springs.

Al Baher and R. M. Clark, who operate the Vandalia Cement Tile Company, of Vandalia, were adjudged bankrupt in the United States district court at Vandalia. Their liabilities are estimated at between \$15,000 and \$17,000 and their assets at \$3,000. The firm had been in the cement, drain tile and building block manufacturing business for about two years.

The McHenry Artificial Stone Company has been formed at McHenry. The firm is composed of William Meyers, of Johnsburg; George Wirfs, Jacob and Matthias Steffes, of McHenry. A site has been purchased and a factory building of cement blocks 30 by 80 feet will be erected. A steam curing kiln will be installed to permit operation all the year around. The company will manufacture all sorts of building material, chimney caps, porch columns, well covers and horse blocks. It will also retail cement and Plymouth wall plaster. The company is now specializing in a granite block.

A concrete dam to cost \$3,745 figures in the plans of the new water works system at Virden.

John McGarry and Lincoln Lukins, of Decatur, have made application for letters of patent on a concrete post in which is imbedded a strip of wood 2 by 4 inches, so that it is possible to nail to the post the horizontal piece necessary to construct a wooden picket fence.

The Farmington Cement Company, of Farmington, has installed four steam dry kilns and is building a new boiler room. At the cement show in Chicago they purchased a form for the manufacturing of cement burial vaults which they will place upon the market.

E. Bartlett & Son, manufacturers and dealers in Playford cement stove silos, have opened an office in the Kendall building in Woodstock.

The Sanitary Community Mausoleum Company, of Chicago, is contemplating the erection of a 300 crypt concrete, marble and bronze mausoleum at Hillsboro.

The Universal Portland Cement Company, of Chicago, had a representative with moving pictures at the good roads meeting of the Litchfield Motor Club.

T. A. Patteson and C. C. Degenhardt have opened an office at 233 Bridge street, Peoria, and will locate the Cement Stave Silo Company at some suburb of Peoria. They will make, in addition to cement silo staves, staves for cisterns, sewers, standpipes and water mains.

## ILLINOIS CONCRETE ITEMS.

Springfield, Ill., March 20.—Highway commissioners of Crete township, Will county, contemplate the construction of a concrete road.

The Cocking Cement Company, of Jacksonville, recently sold an order of 100,000 cement blocks in Mt. Sterling.

The Beardstown Concrete Construction Company, of Beardstown, has been incorporated, with capital stock of \$12,000, to do construction, public improvement and building work. The incorporators are James D. McCarthy, David R. Hughes and Guilford M. Humphrey.

The Rockford Concrete Company, of Rockford, was awarded second prize with its artistic booth at the Made-in-Rockford show. Specimens of Terazzo Scagliola, waterproof stone, two-piece building tile, shingles and lawn vases were exhibited. The Rockford Block and Silo Company and the Carrico Stone Company also had displays.

C. C. Parker has purchased the interest of his partner, Amos Bordner, in the concrete block firm of Bordner & Parker at Clinton.

The Weber Chimney Company, of Chicago, was awarded the contract for building a concrete chimney at the electric light plant in Stonington for \$915.

The Sterling Cement Company, of Sterling, exhibited building blocks, pillars, urns, cistern covers and other products at the meeting of the Illinois State Farmers' Institute in that city. The Sterling Pattern Works had an exhibit of concrete mixers.

Lon Greenleaf, bookkeeper at the Otis Hoffman concrete plant in Jacksonville, recently gave an enjoyable oyster supper at the factory for the employees of the concern.

H. C. Johnson, of Tampico, has built a new factory building for the manufacture of cement blocks.

E. Herland, of Divernon, will engage in the manufacture of concrete tile.

## MAY DEVELOP WATERFRONT.

Philadelphia, Pa., March 18, 1913.—The concrete dealers of Philadelphia anticipate greatly increased business from the petition which Director Norris of the Department of Wharves, Docks and Ferries, will present to this session of the Pennsylvania legislature. The petition asks that body to grant the department the power to develop the waterfront by the acquisition of lands that may be converted into city piers. This is part of the general plan of the present administration for the upbuilding of the city. If this petition is granted, the work of building the municipal piers will begin at once and will create a big demand for concrete at the start.

The dealers are also extremely pleased over the announcement of Congressman Robert E. Lee that he had received additional assurance of support for his bill providing for a 1,700-foot dry dock at the League Island Navy Yard. Mr. Lee said: "I now feel assured that construction of the biggest dry dock in the world will begin at Philadelphia with the year, and I shall ask the committee on appropriations for \$100,000 to start the preliminary work."

The Merchants and Miners Transportation Company will build a \$62,000 addition to one of their Delaware piers. The work will be started in the near future and the contract for concrete will be awarded to a local firm.

## CONCRETE DOCK FOR LOS ANGELES.

San Francisco, Cal., March 17.—Additional concrete construction contracts of no little importance are still coming out. The Harbor Commissioners recently let the contract for Pier 37, at the foot of Kearny street, which will be the longest yet constructed in the local harbor. It will be 200 feet wide, and 1,080 feet long on the longest side. It will be an open wharf, supported by concrete pillars 10 feet apart. The contract was let to the Thompson Bridge Company at \$475,000.

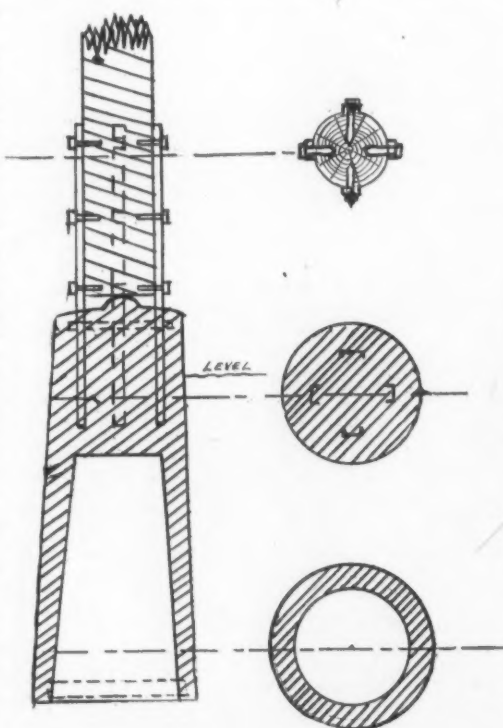
The city of Oakland has received bids for the construction of a concrete bridge across the mouth of Lake Merritt, the lowest figure being that of the Ross Construction Company, \$25,714.

Manager Triest, of Snare & Triest, the New York contractors who secured the contract for building the 2,540-foot reinforced concrete municipal dock No. 1 on Huntington Fill, in Los Angeles' harbor, has arrived in that city to prepare for active operations. The contract amounts to \$444,777.

## CONCRETE SUPPORTS FOR POSTS.

The duration of wooden posts being chiefly limited by the rotting of the part in the ground, concrete footings have been designed to prevent the contact of the earth and the wood. One of these in use in France is shown in the accompanying drawing.

The post is connected with the foundation by means of channel irons and its base rests on a pro-



tuberance which rises about one foot above the ground level, in such a way that the rain can not accumulate between the post and the footing and cause rotting at this point. The height of the support varies from about 44 to 68 inches; the exterior diameter from 16 to 22 inches; the smaller one is used for posts from 6 to 8 inches diameter and 30 feet high, and the larger for posts from 10 to 14 inches diameter and 60 feet high.

In addition to the advantage of assuring a better preservation of the wood, these supports give the posts a greater resistance to overturning, the surface of the footing presenting as much more resistance as its diameter is greater than that of the post. This has been verified by tests made by the director of posts and telegraphs at Nancy.

These supports are used with great advantage in the repairing of lines in which the posts have been damaged at the base. All that is required is to cut the post at about one foot above the ground and set them in the footings. This can be done without interfering with the use of the line and requires very little time. For a telegraph line supporting 59 wires on one of the French railways, the time required was about twenty minutes.

Finally, the fact that the base of the post is always visible permits an easy verification of its condition; thus can be prevented the numerous accidents which are the result of the rotting of a base which is hidden from view.

## CANADA CEMENT CO. BOOSTS CONCRETE ROADS.

A great amount of rural paving is contemplated around Winnipeg, Canada, during the coming year. The Canada Cement Company, Ltd., through their extensive publicity campaign have been largely responsible for the consideration all of the road commissioners have given concrete in one way or another. In fact, the commissioners have figured out that they could not afford to overlook concrete. A trip was made down to Detroit to visit the concrete roads in Wayne county, by a number of highway commissioners from municipalities in Manitoba, the party being in charge was L. S. Brunner, manager of the publicity department of the Canada Cement Co., Ltd. H. F. Beresford and W. H. Green, also of that company, accompanied the party, which is about the tenth one given by the Canada Company since last May. The company has been instrumental in pushing the use of cement to the front as a medium for roadway construction for more than two years and the results which have attended their efforts have been very gratifying in that direction. Appropriations for such road improvements are being made on every hand, and it is quite evident that government officials are very much pleased with concrete roads. A little pamphlet has been issued by the Canada Cement Company showing the process of construction of concrete roads on King Edwards Highway, Naperville, Quebec. In deciding to use concrete on the King Edwards Highway, the Quebec Provincial Government has recognized the striking advantages of this material for road work. The commercial value to towns and cities of good roads leading into them from surrounding territory is universally recognized. The problem of building and maintaining good roads, however, was difficult of solution until it was proven that concrete would provide a splendid road at low first cost, and practically no expense for later maintenance.

August Baltzer, Calvin Stewart and C. H. Crawford have organized the Baltzer Concrete Construction Company, capital \$100,000, at Kenosha, Wis.

The Northwestern Cast Stone Company of St. Paul, Minn., has changed its name to the Cast Stone Company; capital, \$35,000; Price Wickersham, president; E. Y. Arnold, secretary.

At Birmingham, Ala., the Alabama Concrete Roof & Tile Co., has been incorporated with capital stock of \$25,000, of which \$14,602 has been paid in. Robert Treschel is president, and James E. Dunlap, secretary and treasurer of the company.

MacArthur Brothers Company of New York and Chicago, sometimes known as McArthur, Beck & Co., Ltd., or McArthur Concrete Pile and Foundation Company, have opened offices at 1015 Chronicle building, San Francisco. They will be under the management of C. C. Tinker.

The Madelia (Minn.), Cement Tile Company will start its factory as early as possible in the spring, making tile and building blocks. The officers elected at the annual meeting are: President, Charles Russell; secretary and treasurer, C. E. Brown; manager, James N. McCarthy; directors, E. L. Gove and A. A. Bundy.



**TO BUILD CONCRETE ROAD IN LA SALLE.**

At the close of the recent Springfield (Ill.) Good Roads Convention, Mayor Thos. F. Doyle of La Salle headed a delegation from that city, in conference with the Illinois State Highway Commissioners on the question of building a permanent roadway from the Rock Island depot at La Salle to a point one mile south.

Plans and estimates for the work were prepared by the State Highway Engineer and were laid before the La Salle Board of Highway Commissioners on Monday of last week; meanwhile, interest in the project was aroused among the producers of roadway material in the state.

F. W. Renwick, president Joliet Sand & Gravel Co., Chicago, considered the enterprise a laudable one and consented to furnish free the gravel, consisting of approximately 2,800 tons or 95 carloads of this material. The Marquette Cement Mfg. Co. and the Chicago Portland Cement Co., Chicago, demonstrated similar interest and will jointly furnish without cost the cement required, amounting to 26 carloads. The American Sand & Gravel Co., also of Chicago, stands sponsor for 54 carloads of sand, which will be shipped as required from sand pits at Buda and Lincoln.

At a meeting of the La Salle Board of Highway Commissioners held at La Salle on Wednesday, February 5th, letters were read from the donors and their respective offers formally accepted, the Board appropriating the sum of five thousand dollars to defray the cost of labor and fuel incidental to the work.

The Illinois Highway Commission at Springfield was then petitioned to supervise the building of the road, and in granting this request the State Highway Engineer named May 1st as the date on which the work will proceed.

The specifications of the State Highway Engineer call for a roadway nine-tenths of a mile long, twenty feet wide, with an average thickness of seven inches. It will replace the old road at a point where it is subjected to heavy traffic, La Salle being the most convenient market for the prosperous farming community immediately south of the city and which must necessarily travel this highway.

The old road is in very bad condition and has on that account been a source of complaint among farmers; hence the activity of the La Salle Board of Highway Commissioners, who now express keen satisfaction in the rapid culmination of their plans for the replacing of it with a permanent highway of the most approved type.

The generosity of a number of Chicago business men, who, in denoting the materials, have thereby contributed 60 per cent of the cost of this roadway, is also a source of gratification to the citizens of La Salle and vicinity generally.

**SPECIFIES CONCRETE BASE FOR STREET PAVING.**

A warm contest over the decision of the department of public works at Spokane, Wash., to exclude from city specifications all street paving not having a concrete base is scheduled in connection with the paving of Mission avenue from Division street to the Mission avenue bridge, an \$80,000 improvement which soon will be before the city council. Commissioner Coates and City Engineer Macartney have determined not to specify in the plans any pavements without a concrete base, but have not obtained consent of the council in the matter. "The Mission avenue plans will be sent to the council without any specifications for any paving which has not a concrete base," said Commissioner Coates. Bituminous pavements without concrete bases have been ordered by the council because such pavements are cheaper and were wanted by a majority of property owners on several streets. Commissioner Coates says a concrete base pavement is cheaper in the long run because nothing more than the surface ever has to be replaced, while other pavements have to be entirely relaid when worn out.

An unique feat in concrete construction was performed recently at Asheville, N. C., in the erection of the Grove Park Inn when a steady stream of concrete was poured through a channel for one entire week forming in one piece the concrete ceiling for the lobby and the six mammoth columns which will support it. It was necessary that there be no interruption in the pouring process and that there should be no crack or break in the solid piece of concrete masonry. By the aid of lights which were erected, workmen could work in shifts all night. About 6,000 bags of cement were used to furnish this stream of concrete.

The Concrete Culvert Company of Winona, Minn., whose plant was established three years ago by A. J. Van Dusen, announces the establishment of a branch plant at New Ulm this spring.

**MONSCO REINFORCED CONCRETE SILO.**

The silo for the proper housing of ensilage for feeding cattle is deriving a great amount of attention from those best qualified, whether by reason of actual experience or through constant, concentrated study, to attest to its merits as a means of increased income and decreased labor account. It is no longer in its experimental stages and is now advocated by every agricultural expert as a practical necessity for the successful conduct of the farm. The agriculturist who operates his interests along progressive lines now realizes its advantages, and those who have built silos would not under any circumstances go back to the old method of feeding. The silo is just as essential to him as his barn or other structures, for he knows the revenue-producing qualities of silage as the basis of feeding, not alone because it is cheap, but because the succulent, palatable ration is enjoyed by the cows, giving them green feed in the winter.

The time is now at hand when all farmers and dairymen will realize the necessity of putting up one or more silos so that they can keep double the number of cows on the same number of acres. Scientists tell us that 40 per cent of the value of the corn plant is in the stalks, leaves, etc.; thus by putting the crop in the silo this 40 per cent, which would otherwise go to waste or at the best be worth only a very small amount per acre, is thereby saved. If left on the ground numerous insects will find an abiding place in them.

The silo is also a land cleaner as to weeds. Any weeds, summer grass, etc., are cut with the corn and go into the ensilage. They are cut before the seeds fall and the heat of the silage kills the germ, consequently the manure contains no weed seeds that will

**MONSCO REINFORCED CONCRETE SILO.**

grow. Then, too, the land is cleared of the present crop in time to seed to winter wheat, fall plow or haul on manure during the winter.

Thus, with this knowledge gained, it resolves itself into the question of what kind of silo to build; but this will not long remain an unsettled factor, since the concrete silo is being almost universally adopted because it is the most substantial and airright that can be constructed.

The "Monasco" reinforced concrete silo, the equipment of which is manufactured by the Monolithic Silo & Construction Co., Peoples Gas building, Chicago, Ill., is one of the best examples that is constructed to fit the requirements of the dairyman, etc. This silo is being displayed by the University of Illinois and the University of Wisconsin, and is regarded generally as the standard of efficiency in silo building. The Monasco equipment is being used by the most experienced silo builders in this country, and all of them have met with unqualified success in building monolithic concrete silos with the Monasco forms.

The Monasco forms are made in two circles, each three feet in height, and each circle divided into five segments for convenience in handling (each segment weighing approximately 140 pounds). Six feet of wall per day is poured, three feet in the morning and three feet in the afternoon, reinforcement and ladder irons being installed at the same time, and chute also being poured.

Silo walls built by this system are six inches in thickness and do not vary from the top to the bottom. In the matter of reinforcement, the cold-drawn triangular mesh, manufactured by the American Steel & Wire Co., is recommended. This reinforcement comes in 150 feet rolls, 42 inches in width, allowing the operator to lap six inches on each course. The

Monolithic Silo & Construction Co. considers the cold-drawn mesh superior to rod or bar reinforcement, stating that it insures a uniformly reinforced wall and at the same time costs less.

With the Monasco equipment it is possible to build a complete 16'x42' monolithic reinforced concrete silo in nine days. Instructions are furnished which makes it quite easy for an inexperienced man to erect a perfect silo.

A scaffold hoist is also furnished which enables the operator to build to any height and without timbering of any kind, which will effect a considerable saving on the lumber alone. The center mast is built up from the bottom by inserts of mast, each 10 feet in length. All castings on this scaffold-hoist are of cast steel.

**REMEDY LIES WITH THE PUBLIC.**

The reduction of the enormous fire waste of the country, now amounting to nearly \$225,000,000 a year, lies in the hands of the American public. If it can be brought to realize the enormous drain these preventable fires involve upon the national wealth, the hundreds of lives which are annually lost and that carelessness in one form or another is chiefly responsible, they would check the waste by encouraging individual and municipal responsibility for securing better conditions. The average man apparently believes that the present proportion of fires is inevitable, just as our forefathers believed that plagues and epidemics were inevitable. The latter were prevented because the people individually and collectively were finally induced to give heed to proper sanitary rules. The epidemic of fires could be reduced as easily if the people individually and collectively would give heed to proper rules for the construction, protection and care of their property. Concrete construction is the one only everlasting established remedy.

**CONCRETE WAREHOUSE.**

On this page is shown the six-story reinforced concrete warehouse of George A. Kelly & Co., wholesale druggists, of Pittsburgh. It was designed by Architects Irvin & Withrow and is probably the best example of reinforced concrete construction in Pittsburgh. The building measures 130 feet on Anderson street and 100 feet on Duquesne way. It represents the cantilever design, the keynote of this type being the slightly arched ceiling, which eliminates all intermediate cross beams. The basement is strictly flood proof, as shown in the recent big flood in Pittsburgh. There is a membrane of coal tar pitch and wool felt paper extending along the basement floor and up the sides to the first floor level. The basement floor is further reinforced against the upper pressure of the water and is 12 inches thick in its thinnest portion. There are no openings. The only way the water can enter is near the cellar door, which extends out under the pavement. This is protected by a heavy steel door that can be screwed down tight on flood days. Ventilation for the cellar is obtained by air ducts extending in the first floor walls and turning out toward the street above the first floor level, which is 3½ feet above the pavement. The building rests on a foundation of 510 concrete piles, 16 inches in diameter and from 25 to 50 feet long. These would make a railroad three miles long if laid end to end. The warehouse will carry a working load of 250 pounds per square foot and will take from 1,200 to 1,500 pounds dead load per square foot before the floors would break.

All floors are finished in cement. A feature of the building is a big concrete monolithic vault on the first floor. The first floor is devoted to office purposes chiefly. The second floor is the opening stockroom. The upper floors are used for storage and packing drugs.

**CONCRETE WAREHOUSE OF GEO. A. KELLY & CO., PITTSBURGH, PA.**



### FORT WORTH AND DALLIS CONSTRUCTION.

Fort Worth, Texas, March 10.—One of the leading construction jobs of 1913 in this young giant of the West will be the State National Bank skyscraper, bank and office building. Sanguinett and Staats, architects, with offices in Dallas, Fort Worth, Houston, Waco, Lake Charles, La., and other points, drew the plans. W. H. Harrison is president of the bank and S. P. Berry is cashier. The building will be of fireproof construction, built on steel frame. There will be much tile and concrete work in the building. The lower floors will be faced with polished granite and terra cotta moulded. The upper two stories will be faced with cream terra cotta. There will be eleven stories for offices, one for storage. The first story and mezzanine floor will be used for the bank. The basement story will have rental floor. The elevator, machines and house tank for water will be above roof in brick. The observation tower will be 175 feet above the sidewalk, or seventeen floor levels. In some places the foundation will be 20 feet and seven inches. The steel frame work was designed for hurricane load. The corridors will have tile floors and be wainscoted in marble. The offices will have cement floors, enameled and painted. Considerable hardwood will be used, too. The Main street lobby will be in marble. The building will cost upwards of \$350,000. McDonald and Blevins will do the plumbing. The Fort Worth Builders' Supply Co. will furnish some of the cement and terra cotta materials and the marble will probably be Tennessee pink. Buchanan and Gilder are the contractors.

The residence of W. T. Waggoner, illustrated on this page, is one of the handsomest homes in Fort Worth or in the Southwest, for that matter. It was designed by Architects Sanguinett and Staats, of Fort Worth, Dallas and Houston. Buchanan and Gilder were the contractors. The foundation is of Texas stone, the roof of tile, building of face brick from the Bradford Pressed Brick Co., of Bradford, Pa., and trimmings of terra cotta from Webster Terra Cotta Co., Chicago. These last three items were furnished through the Fort Worth Builders' Supply Co. The tile for roof was from the Detroit Roofing Co.

The picture of the Dallas (Texas) Country Club presented herewith represents a pretty piece of construction work on one of the popular rendezvous of Dallas. It was completed last year. C. D. Hill & Co., of Dallas, were the architects. The Fred A. Jones Building Co., of that city and St. Louis, were the contractors. The structure in exterior appointments is dark brown brick with red tile roof. Terra cotta trimmings, cement floors in certain portions of structure and hardwood in balance, with some little tile work and the plastering U. S. Gypsum done by George Shank & Son, of Dallas, are a few of building's details. There are about thirty bedrooms and any number of parlors, halls and porches.

One of the pebbled dash residences of the light gray stucco type—Leslie Stemmons' residence, Rosemont, in Oak Cliff, a part of Dallas, Texas, proper—is one of the attractive examples of stucco work recently erected in the Southwest. Brickey and Brickey, Praetorian building, are the architects.

In the matter of reinforced concrete work, skyscrapers and paving, quite a little is going on this spring in Dallas and some beautiful work was completed in Dallas and Oak Cliff, a residential suburb, last season. The tone of the cement market is stronger than this time last year. The sand trade, lime and plaster business are also active.

The Dallas News is starting a new building for its mechanical departments. This wonderful daily paper, which is associated with the Galveston News, is run by A. H. Belo & Co. Both Mr. Belo and his



RESIDENCE OF LESLIE STEMMONS, OAK CLIFF, DALLAS, TEXAS.

wife are dead, the latter having died a few weeks ago. This structure is designed by Architects Hubbell and Greene. The general contract is held by the Alexander Watson Construction Company.

The Busch building, Dallas, to stand sixteen stories high, is under way on Main street. The Gilsonite Construction Company, of St. Louis, Kansas City and Dallas, have this contract. The T. A. Barrett Architectural Company, of St. Louis, prepared the plans. The first five floors and basement will be occupied by the mercantile department of A. Harris & Co. The remainder will probably be used for offices. Lang and Witchell, of Dallas, are the supervising architects on the ground. The building will be of reinforced concrete with steel work. This building will be of Gothic design. Pressed face brick will be used on the east, north and court walls, mottled, ginger, dark color; ornamentation of terra cotta; corridors and wainscoting in marble, probably Tennessee pink. The building will not be finished until November, 1913, though work is well under way.

The new City Hall of Dallas has been contracted for. It will cost about \$400,000. The plans were drawn by Architects C. D. Hill & Co., this city. The Fred A. Jones Company has the contract. Bed



STATE NATIONAL BANK, FORT WORTH, TEXAS.

ford, Ind., and Carthage, Mo., stone for exterior with some terra cotta and much concrete work on interior will be features.

One of the notable pieces of construction under way for 1913 is the Southern Methodist University, on the outskirts of Dallas. A number of college buildings and residences for the professors will be erected here. Fred A. Jones & Co. have the general contract for those now under way.

The completion of an elegant concrete viaduct in the Trinity river section and toward Oak Cliff residence section, now a part of Dallas, was one of the notable construction jobs here of the recent past.

J. S. Shaw, manager of the Fort Worth Builders' Supply Co., reports business very fair this spring on building materials.

The Fort Worth Light and Power Company is doing a lot of reinforced concrete work across Trinity river. The plant will cost upwards of \$1,000,000. The North Western terra cotta is being used. The chimney will stand 250 feet high and will be of reinforced concrete. The Cleveland Construction Company, of Cleveland, Ohio, is doing this work. The Fort Worth Builders' Supply Company is furnishing part of the material.



DALLAS COUNTRY CLUB, DALLAS, TEXAS.

Nels Christianson of Belgrade, Minn., has opened a cement and block factory.

W. E. Dunstan, Elizabeth City, N. C., is organizing a company for the purpose of manufacturing cement bricks, etc.

The Carver Construction Company (Inc.), of Fulton, \$10,000; Egbert J. Carver, Lelah M. Carver, Sanford D. Wells, of Fulton.

The Cement Products Co., Sac City, Iowa, recently purchased the business of the Sac City Cement Block Company and will continue it.

The Petrous Manufacturing Company, Biloxi, Miss., is going to install additional equipment to increase the capacity of their plant for the manufacture of concrete bricks.

Camden Cement Tile Company, Camden, Ind. Capital stock, \$16,000. Manufacturing building blocks, drain tile and sewer pipe. Incorporators, U. E. Tesh, M. A. Cline and Arthur Ritchey.

The Kramer Automatic Tamper Co. has purchased the old Rouse-Hazzard bicycle plant at Peoria Heights, Ill., and will manufacture machinery to be used in the construction of cement blocks.

The Modern Concrete Works, Clay City, Ind., has been incorporated with a capital stock of \$10,000, to manufacture concrete products. The directors are George C. Kaiser, O. P. Danier and I. H. Beatty.

David I. Smith, Elkhart, Ind., a mason contractor with twenty-seven years' experience, is preparing to erect an artificial stone manufacturing plant at the corner of Charles and Princeton streets. The structure will be 40 feet wide and 50 feet long.

H. W. Kahl & Sons, Oakland, Md., will expend about \$5,000 to erect a plant for the manufacture of concrete blocks within a short time. The building will be 40x100 feet and will have a capacity of 10,000 brick and 500 concrete blocks daily.

George Ryther, a leading contractor and builders' supply man of Middleport, Ohio, has uncovered a building sand and gravel tank of 1,000,000 loads at that place and will install a cement block factory there and operate it this summer. It has a large down river trade.

A new building on the site of the one burned down is to be built by the Cement Stave Company, Rockford, Ill., and the wreckage of the old one is being picked up to make way for the new structure which will be the same size as the other. It will be reinforced concrete. Charles and Ray Trafton and C. C. Woods, the owners of the company, have secured the plans and will begin the work as soon as the weather permits. The structure is to be fire proof to protect the machines of the concern.



RESIDENCE OF J. T. WAGGONER, FORT WORTH, TEXAS.

# "BERKELEY" High-Calcium LIME



## SECURITY SERVICE IS "AT YOUR SERVICE"

Efficient attention to YOUR orders and  
YOUR inquiries.

Material selected and prepared to suit  
YOUR needs.

Shipments when YOU want them, and  
as you would have them.

Prices in proportion to Quality.

**Security Cement and Lime Co.,**  
HAGERSTOWN, MD.



# SECURITY PORTLAND CEMENT



SALES OFFICE:  
Liggett Bldg., St. Louis



SALES OFFICE:  
Long Bldg., Kansas City

## THE Standard Brands

OF  
**Portland Cement**  
Lightest in Color  
Highest Tensile Strength

**ALWAYS UNIFORM**

Always the same high  
quality. Prompt ship-  
ment guaranteed at all  
times and made pos-  
sible, as each mill is lo-  
cated within switching  
limits of the two great-  
est railroad centers of  
the West. You are  
assured of your orders  
being promptly filled.

MANUFACTURED BY

# Union Sand & Material Co.

ST. LOUIS  
Liggett Bldg.

KANSAS CITY  
Long Bldg.

MEMPHIS  
Tenn. Trust Bldg.



## Ninety-five Pounds the Sack

**Every  
Sack**

**FULL  
ONE**

THE method of sacking "Chicago AA" Portland Cement is controlled by a mechanical device of perfect operation, the only one of its kind employed in this country, and the process of weighing is closely supervised by a staff of checkers, thereby insuring absolute accuracy.

THAT is the reason why the "Chicago AA" dealer is exempt from complaints on "short-weight"—our entire system built upon 14 years experience in serving the dealer is developed to a point where we not only eliminate all possible trouble with our customers, but between our customers and their trade.

*If you have not availed yourself of the "Double A" service, write for full particulars today*

**Chicago Portland Cement Co.**

J. U. C. McDANIEL, Sales Manager

Dept. 74 Chicago, Illinois

# WETHRPRUFE

Open  
Mouth



Bates  
Valve

## WATERPROOF

An Extra Heavy, Extra Strong  
**WATERPROOF PAPER BAG**  
For Cement, Plaster, Lime, Etc.

# West Jersey Bag Co

Camden, N. J.

Tell 'em you saw it in ROCK PRODUCTS



# OTTAWA SILICA CO. Ottawa, Ill.

Washed-Steam Dried and Screened

## White Sand

Unexcelled for { Facing Concrete Blocks  
Ornamental Concrete Stone  
White Plaster  
Roofing  
Exterior Plastering  
Sawing Stone and Marble, etc.

Analysis 99.90%

Prices, Freight Rates and Samples on Application

Shipped in Paper Lined Box  
Cars or in 175-lb. Bags

You can order less than a carload, in fact shipments as small as five 175 lb. bags can be delivered economically.

LARGEST SHIPPERS OF WHITE SAND IN THE UNITED STATES

## MEACHAM & WRIGHT COMPANY CEMENT CHICAGO



### Saylor's Portland Cement

Oldest American Portland  
Used by the United States Government since 1876  
COPLAY CEMENT MANUFACTURING CO.

SALES OFFICES:  
Fifth Avenue Building, NEW YORK CITY 1106 Land Title Bldg., PHILADELPHIA

ROBERT W. HUNT JNO. J. CONE JAS. C. HALLSTED D. W. McNAUGHER

ROBERT W. HUNT & CO., ENGINEERS  
INSPECTION CEMENT & REINFORCING STEEL  
CHEMICAL AND PHYSICAL TESTING

Chicago Montreal New York San Francisco Office and Laboratories Pittsburgh Toronto St. Louis Mexico City London Seattle

## WHITEHALL PORTLAND CEMENT

Whitehall Cement  
Manufacturing Co.

1722 Land Title Bldg.  
Philadelphia

## "Riverside" Plaster of Paris



is made from the best selected Nova Scotia Gypsum, and is the recognized standard in quality. It sets slowly, works cool, has great tensile strength.

It is the lightest, the finest, a pure white in color, and absolutely uniform.

It has the greatest covering capacity and makes the hardest wall.

If you are interested in Finishing, Casting or Dental Plasters write for our "Riverside" Booklet. It tells how all Plaster of Paris is manufactured and why "Riverside" is the highest grade of Plaster made.

### Rock Plaster Manufacturing Co.

381 Fourth Ave. - - New York City.

## The MORRILL SYSTEM of STEEL FORMS Reduces Cost, Eliminates Waste of Lumber and Labor



Note the "Swing Up", 30 feet (15 plates), raised in 10 minutes.

**Simple—Rigid—Indestructible**  
Any man can put it up. Adjustable to any dimensions and any thickness.

**No Bolts—No Nuts—No Wires**  
All wedge connection—locked and unlocked by a stroke of the hammer. Adopted on hundreds of buildings for Real Estate Companies, Railroads, and Foreign Contracts.

Makes Poured Houses Possible.  
Investigate fully, it is worth your while. Write today for Catalogue.

Read & Morrill, Inc.  
179 Jerolemon St., Brooklyn, N. Y.

## CLINTON METALLIC PAINT CO. CLINTON, N. Y.

LARGEST AND OLDEST MANUFACTURERS OF

## BRICK AND MORTAR COLORING

Be sure you get the genuine with the "Little Yellow Side Label" on each package

Let us tell you about Side-Walk Black.

PORTLAND CEMENT LIME PLASTER

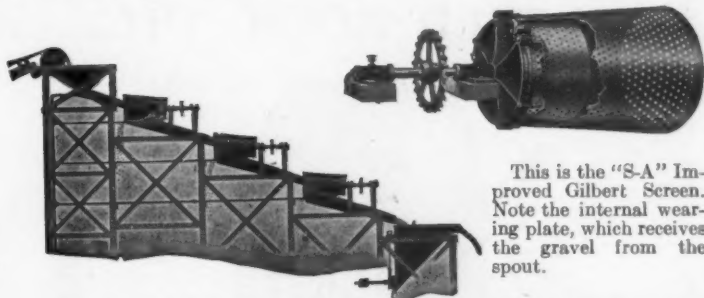
RICHARD K. MEADE, Mem. Am. Soc. Mech. Engs., Mem. Am. Inst. Chem. Engs.  
Chemical, Mechanical and Industrial Engineer  
202 N. Calvert Street, Baltimore, Md.

Plans and Specifications for Improvement of Old Plants or Construction of New. Inspection, Tests and Analyses. Advice as to Improvement of Product or the Economic Operation of Plants. Reports on Properties and Raw Materials.

Tell 'em you saw it in ROCK PRODUCTS



## Study the Layout of this "S-A" Gravel Plant



This is the "S-A" Improved Gilbert Screen. Note the internal wearing plate, which receives the gravel from the spout.

This shows a typical layout of an "S-A" Gravel Washing System. Gravel is delivered from the belt conveyor at the left into the first Gilbert Screen. This screen rejects the largest size to the bins and passes the fines into the next screen. This screen in turn rejects the next larger size and so on. The fines from the last screen pass with the water into the settling tank which rejects the clean sand to the bin and passes off the clay and silt in solution with the water. Note that

under this arrangement, the large stones are rejected first and thus relieve the screen of excessive wear. Also, note that the material must all be discharged *against* the stream of water insuring perfect washing of every particle rejected to the bins, and increasing the efficiency of the screens.

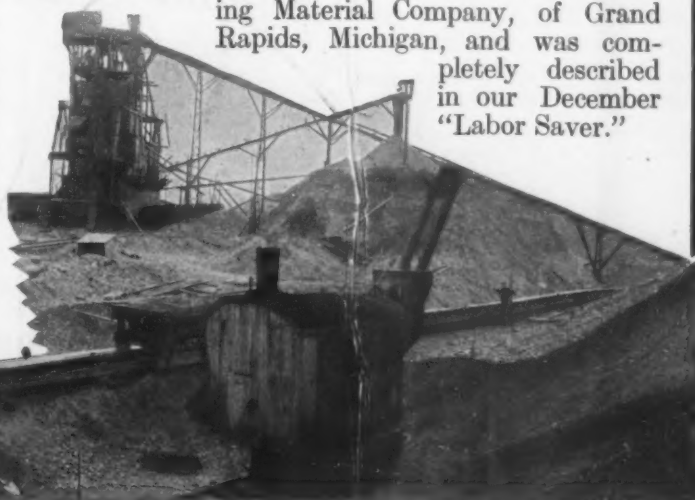
The "Labor Saver" during 1912 described 16 modern gravel washing plants

each one designed to meet certain local requirements. These 16 plants represented only our most interesting installations selected from a great many plants designed and erected by us. You can have the "Labor Saver" free if you're interested in the latest designs and improvements in modern conveying machinery. Send us your name and address.

**Stephens-Adamson Mfg. Co.**  
AURORA, ILLINOIS

New York Pittsburgh St. Louis San Francisco Chicago Los Angeles

A travelling hopper on a portable "S-A" Belt Conveyor 300 feet centers serves the steam shovel. A 180-foot "S-A" Conveyor raises the gravel to the plant. Material rejected by the screens to the crusher is raised again to the main conveyor by a 98-foot "S-A" conveyor. Three sizes of gravel and one of sand are passed into the bins. This is an "S-A" Gravel Washing Plant designed to suit certain local conditions. It is owned and operated by the Battjes Fuel & Building Material Company, of Grand Rapids, Michigan, and was completely described in our December "Labor Saver."





PERMANENT and THOROUGH  
Water-proofing of Cement Work  
results from the use of

### Maumee Compound

SPECIFICATIONS AND SAMPLES  
ON REQUEST

**The Maumee Chemical Co.**  
403 ST. CLAIR BUILDING  
TOLEDO, O.

TRADE MARK.

**F. L. SMITH & CO.** 50 Church St. NEW YORK

SPECIALISTS IN

**Engineering Cement Works**

AND

**Cement Making Machinery**

**THE FULLER ENGINEERING CO.**

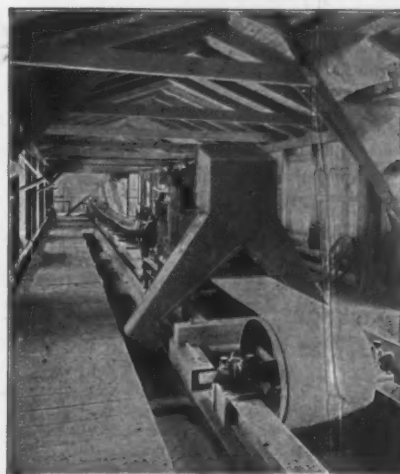
Designing, Constructing and Operating Engineers  
ANALYTICAL CHEMISTS

Cement, Hydrated Lime and Gypsum Plants a Specialty

OFFICES: Allentown Natl. Bank Bldg. - - ALLENTOWN, PA

## Everything You Require

For Handling Your Materials  
and Driving Your Machinery



Conveyors  
Elevators  
Screens

Chains  
Gearing  
Buckets

Power  
Transmission  
Equipment

Our Engineering Department Always at Your Service

Send us your orders for miscellaneous items, and  
let us submit estimates on your equipment work.

**The Webster M'f'g Company**

NEW YORK:  
88-90 Reade Street

TIFFIN, OHIO  
(23)

CHICAGO:  
815-817 Fisher Bldg.

Tell 'em you saw it in ROCK PRODUCTS

**A SPECIAL BELT FOR ELEVATING AND CONVEYING  
CEMENT, SAND, GRAVEL, CRUSHED ROCK, ETC.**

# Rexall

Double Stitched

## Belting



Are you interested in a belt which will not only give maximum service handling your product, but will also cause no trouble from bucket bolts pulling out, plies separating, or edge abrasion?

Write us for sample and convincing "Reasons Why" REXALL BELTING will fill this specification.

**Imperial Belting Company, Chicago**

## REDUCE YOUR COSTS BY RECEIVING YOUR CEMENT IN BULK

Contractors, cement products manufacturers and others who use cement direct from car to mixer may easily cut their costs by ordering their cement shipped in bulk instead of in sacks.

Cement goes into the mixer in bulk—why the trouble and expense of sacking it when it may be handled and proportioned in bulk just as easily as sand, gravel, stone or lime?

Portland cement is one of the cheapest manufactured products and does not warrant a costly package. Our leaflet, "Bulk Shipments of Portland Cement," presents some arguments, the reading of which may save you much money. Send for it.

**UNIVERSAL PORTLAND CEMENT CO.**

CHICAGO - - -  
OFFICES: PITTSBURGH - - -  
MINNEAPOLIS

72 West Adams Street  
- Frick Building  
- Security Bank Building

PLANTS AT CHICAGO AND PITTSBURGH



ANNUAL OUTPUT 12,000,000 BARRELS

Tell 'em you saw it in ROCK PRODUCTS



# CEMENT

ASSOCIATION OF AMERICAN PORTLAND CEMENT MANUFACTURERS.

Meets Semi-Annually.

## OFFICERS.

John B. Lober.....President  
Robert S. Sinclair.....Vice-President  
W. H. Harding.....Treasurer  
W. D. Lober.....Asst. Treasurer  
Percy H. Wilson.....Secretary  
Lewis R. Ferguson.....Asst. Secretary

A. H. Craney, Jr.,  
T. Henry Dumary,  
Edward M. Hagar,  
Richard Hardy,  
R. W. Kelley,  
R. W. Lesley,  
D. McCool,  
W. S. Mallory,  
John A. Miller,  
John R. Morron,  
L. T. Sunderland,  
Frank E. Tyler,

Executive Committee

## CHICAGO CEMENT NEWS.

Chicago, March 20.—There is a general feeling of satisfaction among cement manufacturers over existing conditions in the cement trade. The demand has been noticeably greater than that of the corresponding months last year, and is steadily increasing. It is said that this increase in demand may be estimated at fully 25 per cent over that of last fall. The market is strong, with prices showing an upward tendency, and the opinion prevails that higher prices will rule next month. Shipments are heavy, some manufacturers of cement reporting that they have been double what they were a year ago last March. Stocks of dealers throughout the country are only medium, and with the brisk demand felt so early in the year during the past two months much activity is expected during the coming summer season, as a greater consumption of cement than usual seems assured from all present indications. The car shortage situation remains unchanged from last month, and, while more or less annoying, hasn't become serious. This condition in the car situation, it is said, judging from the light supply now visible, will be felt throughout the coming season, but with the hearty co-operation of the dealers shown up to the present time, cement manufacturers anticipate no serious trouble with shipments. The expression that conditions were never better in the cement field than this year, and the promise of unusual activity during the summer and fall months great, is heard from all quarters.

Blaine S. Smith, assistant general sales agent of the Universal Portland Cement Company, in giving a resume of the conditions in the cement trade, said: "There is nothing in the air but what would indicate a very good year. The market is strong, with an upward tendency in prices. Conditions are extremely satisfactory. Demand has been good and is increasing with every succeeding month this year. Shipments are good and heavier than last year at this time. The car situation is to some extent annoying, as the supply of cars is tightening up the country over, but is not looked upon as serious. The future is bright, with prospects exceedingly promising this year."

J. W. McDaniel, traffic manager of the Chicago Portland Cement Company, stated: "We find conditions in the cement trade more than satisfactory. The demand has been excellent from the first of the year and is steadily increasing each succeeding month. Shipments are very brisk and we find are nearly double those we made last year at this time. The market is very strong and prices exceedingly firm. The visible supply of cars is tightening, but we do not anticipate any serious trouble, though look for occasional annoyance on that score during the rush months this summer. This year promises greater things for us than 1912."

Gold Williams, sales manager of the Marquette Cement Manufacturing Company, believes cement manufacturers will enjoy splendid business this year. He said: "Things are booming and getting better constantly. The market is strong, with an upward tendency in prices, and the presumption from all present indications is that prices will rule

higher next month. Shipments are more than good and far better than last year for the corresponding months, while the same can be said regarding the demand. Conditions are healthy and prospects for an exceedingly active business this year were never better. Stocks at mills are ample. We are likely to be bothered more or less this summer with a shortage of cars, but do not expect it to hamper shipments to any serious extent."

E. L. Cox, general sales agent of the German-American Portland Cement Works, said: "Conditions in the cement trade this year have been excellent. The market is strong and prices are advancing. Shipments are heavy and the demand for cement this spring is 25 per cent greater than last fall. Prospects for greater business than usual this year are more than bright. The car shortage remains about the same as in February, with the likelihood that it will continue through the season, but it is not expected to interfere seriously with shipments. Everything at present points to this as one of the banner years in the cement industry."

Harold M. Scott, western sales manager of the Lehigh Portland Cement Company, stated: "Conditions in the cement trade have been surprisingly good from the beginning of this year and are becoming brighter every month. The demand for cement is large and increasing with the approach of the coming summer season. Shipments are heavy, the market strong, and prices show an upward tendency. There is some anxiety felt on account of the scarcity of cars, which from all appearances will continue through the summer and fall months but, it is believed, will not materially interfere with shipments."

## LOUISVILLE CEMENT NEWS.

Louisville, Ky., March 18.—The cement plant of J. B. Speed & Co. will shortly take up full-time operations. The mill is now making close to that figure, and prospects point to an early increase to total capacity. Demand, according to Secretary Henry S. Gray, is all that could be wished or expected. Mr. Gray, with other local men, expects cement to advance a few points shortly, every sign pointing in that direction. Speed & Co. have taken out a permit and begun work on the construction of a new cooper shop at the corner of Sixteenth and High streets. Mr. Gray is chairman of a committee of the Louisville Commercial Club, which recently recommended the formation of a company, capitalized at half a million dollars, for the purpose of bringing new industries to Louisville.

With its plant already working at capacity, officers of the Kosmos Portland Cement Company are contemplating improvements designed to increase the output. Among the new contracts secured is one calling for the delivery of 10,000 barrels of cement to James B. Haggin's place near Lexington, Ky. The eastern millionaire is planning further improvements on Elmendorf Farm. He has practically a little city of his own there, and is to erect several new buildings. The Kosmos Portland Cement Company also will provide the cement for the new National theater of Louisville. This will consume about 5,000 barrels.

The Tidewater Portland Cement Company, of Maryland, has been awarded the contract for providing the city of Richmond, Va., with cement for the coming year. About 20,000 barrels will be used by the city, the bid of the Maryland company being \$30,000, or 16 cents below that of last year. Stephen A. Ellison & Co., Richmond representatives of the Tidewater company, handled the deal.

The Clinchfield Portland Cement Corporation, of Kingsport, Tenn., is planning extensive improvements in its plant. Modern equipment is to be purchased and a new building erected, though the details have not yet been determined. The company has recently increased its capitalization to \$1,500,000.

## SAN FRANCISCO CEMENT NEWS.

San Francisco, Cal., March 18.—Several California cement mills were closed for repairs in January, but all have been in full operation for the last month, and if the demand continues to grow there may be difficulty in supplying the demand. Importations of cement have been light for some time, but the British steamer Newton Hall has been chartered for cement to Seattle. The demand is especially heavy in the North. Bids were opened March 10 for 100,000 barrels for the construction of the Celilo canal in Oregon. An inquiry is also expected soon for the Balfour-Guthrie irrigation project in Contra Costa county, California, requiring many thousand barrels, and work will soon be resumed on the construction of several power dams in the mountains. New contracts are also coming out for state highway construction.

The Standard Portland Cement Company's plant

at Napa Junction, Cal., which was closed for repairs early in February, was reopened after a week of repairs and has a heavy accumulation of orders from all parts of the Coast.

The Pacific Portland Cement Company has put another locomotive on its Mountain Quarries railroad. It is getting about twenty-five cars of lime rock daily from the quarry. At the annual stockholders' meeting of this company the following directors were elected: Wakefield Baker, F. W. Erlin, William G. Irwin, F. Reis, Jr., Alexander Hamilton, W. M. Beteri and R. D. Robbins.

J. R. Burch, Fletcher Linn, A. D. Nicholson and others are promoting a new cement manufacturing project at Medford, Ore., where they propose to build a plant costing about \$600,000.

## ALTOONA PLANT TO BE REMODELED.

F. W. Freeborn, of the Freeborn Engineering & Construction Company, Kansas City, Mo., and W. H. K. Bennewitz, of the Edgar Allen American Manganese Steel Co., Chicago, Ill., were appointed appraisers of the Altoona Portland Cement Company in Kansas. S. W. Stringer, of Kansas City, was appointed by the court to assist these gentlemen in making a detailed appraisal of the properties of the company, and to make a report on its condition and prospects.

The committee reported the plant in first class condition, with the exception of the necessity for a complete reconstruction of the grinding and crushing end of the mill, in order to make it more economical under the new conditions.

Judge Pollock appointed C. W. Lyon, the receiver, as the trustee for the creditors. Mr. Lyon has been superintendent of the Altoona Portland Cement Company up to the time that the mill ceased to operate. He is an experienced cement man, having been connected with the Alpha Portland Cement Company in the East, and with the Great Western Portland Cement Company in Kansas.

## UNIVERSAL TO BUILD BIG PLANT.

The Universal Portland Cement Company, a subsidiary of the United States Steel Corporation, has started work on the construction at plant No. 7, at Duluth, Minn.

This plant will cost about \$1,700,000 and will have an output of 1,400,000 barrels of Universal Portland cement per annum.

The plant will be electrically operated throughout, requiring about 5,000 horsepower.

Edward M. Hagar, president, states that work will be pushed as rapidly as possible, and it is expected that the plant will be in operation in 1914. With its present plants at Chicago and Pittsburgh this will give the company a total output of 45,000 barrels a day, or 13,500,000 barrels a year.

The shipments of Universal Portland cement in 1912 were 10,047,499 barrels, or 12.34 per cent of the total production.

## PORTLAND CEMENT PRODUCTION IN MISSOURI.

Portland cement has recently become one of the important mineral products of Missouri. In 1911, according to figures collected by the State Geological Survey, there were manufactured in Missouri 4,114,859 bbls. of Portland cement, valued at \$3,349,312. The rapid development of the Portland cement industry is indicated by the fact that the first plant was constructed less than ten years ago, while at the present time, with an output of more than 11,000 bbls. per day, Missouri stands fifth in the production of this important structural material.

Pittsburgh, Pa., March 18, 1913.—The Universal Portland Cement Company secured the order from Treasurer J. M. Marsch for 65,000 barrels of Portland cement to be used in the construction of the Montour railroad near Pittsburgh, which he will build for the Pittsburgh Coal Company.

The Star Portland Cement Company has bought a tract of 10,206 acres in Clearfield, Pa., which was part of the A. L. Balcom property of Philadelphia. The cement company will let contracts next month for a \$1,000,000 plant with a daily capacity of 4,000 barrels. This is one of the most valuable cement deposits in the country, as there is on it also the Upper Freeport vein of coal, which can be mined without disturbing the cement rock.

At the convention of the Pennsylvania Retail Hardware Association held at the Exposition hall, Pittsburgh, Pa., last month, the Universal Portland Cement Company put on a very interesting exhibit of cement products. The convention was largely attended by many builders' supply men from all over the state.

## THE OUTLOOK.

Unless some commercial disturbance now altogether unexpected develops in the middle of the coming summer there is every reason to believe that the total consumption of Portland cement will reach the hundred million mark. The propitious winter weather conditions for building and engineering operations has sustained a constant demand, so that the movement of cement hardly felt the expected decline. This slipped right over into the early spring activity, so that every one of the sales managers feels very proud of his new Easter suit just now. As they see it, there is a place to put every barrel of cement that the mills will produce in 1913, by the ordinary processes of good judgment in distributing the goods. The experience accumulated by the sales departments in the past will this year prove to be the best asset of the cement manufacturers.

The use of Portland cement is no longer considered as an experimental proposition from the standpoint of the engineer and the architect. These technical masters of construction know the value of the material, and what is even more reliable, they have learned to have confidence in the integrity of the manufacturers to keep their brands of cement uniformly up to the standard specifications, so that they can absolutely depend upon the chemical, physical and conditional factors which they use as the basis of their calculations.

The co-operative work of the American Society, as well as its comprehensive campaign for the expansion of the use of cement has accomplished a great deal, and it is growing all the time because founded upon the broad principle of giving the biggest value to the consumer for the money invested.

Concrete made with Portland cement now has the confidence of the public everywhere—at least all of that class which could rightfully be denominated the intelligent public. The discrimination between the right and the wrong applications of concrete and the quality of workmanship are steadily becoming clearer, so that the failures of carelessness in the field are no longer charged up to the cement manufacturer to broadly condemn his brand as formerly.

Portland cement has made good in every count. It has been and is being persistently exploited, and always guided by intelligent and careful men, who aim at satisfactory results for the consumer. This policy, which has been the unexpressed but always present policy of promotion, is the keynote of the wonderful expansion of the consumption of Portland cement up to the probable hundred million barrels in 1913.

The end is not yet, for the practical application of cement in road building is yet in its infancy. Eight years ago, when Rock Products first suggested the use of Portland cement to a meeting composed of road contractors, it was taken as an amusing if not poetical idea of some possible development in the future centuries. Even cement manufacturers at that time smiled and said "paper talk." Nevertheless the meeting of those same road contractors held last month gave several hours to the discussion of concrete roads as a practical proposition which is being dealt with in the actual building of roads. If the road builders understood concrete thoroughly, or the concrete men understood road building thoroughly the concrete road would go with a rush. This is the very point that is now being developed, and it requires that necessary period of time for intellectual digestion before the idea of the concrete road can become the accepted type of permanent highway improvement. Then and not till then will there be any adequate estimate of the demand for cement in road work. It will be one of the biggest users yet discovered.

The waterway improvements of the internal rivers and the rehabilitation of the old canals and new canals for the transportation of low priced heavy tonnage contains a rapidly developing future demand for cement. The improvement of water terminals has been long neglected, so that the use of natural and existing water routes are very inconvenient and in most cases quite expensive to shippers. All of such improvements must be essentially of concrete construction, and there is no public improvement so popular with the masses of the people as this self evident commercial need. The permanent control of the flood waters of the great internal natural river system is a concrete engineering problem of the future which, because of its economic features, is foolish to longer postpone. The conservation of the annual flood damages of the Ohio, the Kaw, the Missouri, and the Mississippi rivers would pay for the controlling works, both principal and interest, in a very few years.

These are the avenues that must be looked to for sustaining the steady demand for the volume of cement that the years are bringing on. With the ordinary growth of the country present outputs are taken care of by the growth of exportations, and foreign business depends upon water terminal equipment more than any other item, for our shippers have naturally to compete with the splendid equipment of foreign ports, both for the economical handling of the goods and financial accommodations of shippers.

## SOME CEMENT STATISTICS.

It is interesting to note that the total quantity of Portland cement manufactured in the United States during 1912 was approximately 81,941,998 barrels. This quantity represents an increase of 3,413,361 over the 78,528,637 manufactured in 1911, or 4.3 per cent. The shipments of Portland cement during 1912 are estimated at 84,750,291 barrels, compared with 75,478,829 barrels in 1911, an increase of 9,202,462 barrels or 12.2 per cent. The production in 1912 was thus held in check sufficiently to permit a material reduction in the stocks of cement at the mills at the close of 1911, which amounted to nearly 12,000,000 barrels.

Statistics for Eastern Pennsylvania and New Jersey, which together form the leading Portland cement manufacturing district of the United States, produced approximately 24,449,523 barrels of Portland cement in 1912, compared with 25,927,108 barrels in 1911. This represents a decrease of 1,522,585 barrels, or 5.9 per cent. The shipments of Portland cement in 1912 approximated 25,905,257 barrels, compared with 25,192,464 barrels shipped in 1911, an increase of 712,793 barrels, or 2.8 per cent. There were twenty mills reported active in 1912, against 24 in 1911.

The cement industry is being rapidly developed in Pennsylvania, which stands forth prominently in the country's production, although the natural product is found in very few counties. The Bureau of Industrial Statistics of the state Department of Internal Affairs gave a table of cement productions in the United States some years ago, beginning with the year 1882. There were 85,000 barrels produced in that year, and in the twenty succeeding years the production had reached an annual output of 12,711,225 barrels. In 1912 Pennsylvania alone had a total production of 26,564,694 barrels. Allegheny county produced 3,410,000 barrels, with a product value of \$2,108,000; Northampton county produced 11,371,599 barrels with a product value of \$10,821,360; Lehigh county, 6,851,237 barrels, with a product value of \$4,565,208; Lawrence county produced 2,175,961 barrels with a product value of \$1,967,660; York county, 48,043 barrels, product value \$112,330, and Mercer county, 7,854 barrels of slag cement.

The following is a report on the cement industry of Pennsylvania: Capital invested (realty, machinery and working capital), \$44,535,201. Total production in quantity, 26,564,694 barrels; market value of production, \$19,691,609. Lost time in this industry (all causes), 1,746 days. Average number of days in operation, 292. Total amount of salaries paid to managers and office help, \$657,849. Total number of wage earners employed, 9,916. Wages paid, \$5,214,428. No average of working hours are given on account of many of the mills working on shifts. Comments in the trade pointed to a consensus of opinion that there was too much political agitation which had resulted in a loss of confidence and suspicions of corporate operations. The manufacturers trust that some legislation will be passed which will have a permanent influence upon the cement industry of Pennsylvania.

Of particular significance in the production of Portland cement in 1912 is the continued use of that product. Practically all the mills had to contend with adverse business conditions during the first six months of the year, in that prices were unsatisfactory, being lower than the average for 1911 at this period. Conditions materially improved, however, during the middle of the year and represented a generally satisfactory standard during the remaining months. The last four months of the year 1912 witnessed a demand for Portland cement sufficient to keep most mills running at full capacity. Although in some districts the production was curtailed slightly in order to decrease stocks which had accumulated, the New York market showed the greatest proportionate increase in production and shipments of any other in this country. The situation in the vicinity of Chicago, in Iowa and Missouri and all of the southeastern states was quite satisfactory. In Kansas some of the plants were hampered to a great extent by the failure of the supply of natural gas, and found it necessary to shut down temporarily while installing coal burning devices. In the great Pacific Coast region, and also some of the states lying in and about the

Rocky Mountains, the production did not equal that of the previous year, there being a slight decrease in the demand for large public works.

The average price for the whole country of Portland cement per barrel in bulk at the mills will probably show a slight decrease when complete returns are received, although at the close of the year prices were much better than they had been during the past two years.

## Portland Cement Production in U. S.

Year	Barrels	Year	Barrels
1900.....	8,482,020	1907.....	48,785,390
1901.....	10,711,225	1908.....	51,072,612
1902.....	17,230,644	1909.....	64,991,431
1903.....	22,342,973	1910.....	76,549,951
1904.....	26,505,881	1911.....	78,528,637
1905.....	35,264,812	1912.....	81,941,998
1906.....	46,463,424		

John Reichard, of Urbana, Ill., is building a new cement warehouse.

The Austin Cement Works, Austin, Minn., was recently destroyed by fire. The plant will be rebuilt at once.

W. C. Smith has purchased the H. A. Hillmer Company building at Dakota, Ill., and engaged in the cement business.

The Peerless Portland Cement Company, of Union City, Mich., has resumed operations for the 1913 season. The shutdown for repairs was of shorter duration than usual.

W. P. Corbett, general sales manager of the Alsen's Portland Cement Company, is spending two weeks down in Florida and is expected at his desk during the latter part of the month.

The International Portland Cement Co., located at Trent, Wash., ten miles east of the Spokane city limits, whose plant has been in process of construction for some months past, has commenced operations.

The Pacific Portland Cement Company has just taken over the Western Gypsum Company plant at Reno, Nev., having purchased the same some time ago. The product of Nevada-Douglas mine will be received and treated at this Reno plant.

The American Fire-Resisting Cement Company, Inc., of Buffalo, N. Y., has been incorporated with a capital of \$10,000, to manufacture cement. The incorporators are: Harry T. Upson, Alta D. Upson and Harry W. Cleveland, 14 Milford street, Buffalo.

The Atlas Portland Cement Company, Allentown, Pa., has received a contract from the Isthmian Canal Commission for all the cement needed to complete the Panama Canal. There is now requirement for 1,000,000 barrels for immediate delivery, with the possibility that the order may run to as many as 10,000,000 barrels.

The mill of the Yellowstone Portland Cement Co., Livingston, Mont., is reported to be about ready for operation. The company has already spent about \$1,000,000 in the construction of the mill near the entrance to the Yellowstone National Park. Engineers have estimated the quantity of limestone on the property at approximately one billion tons.

After having been shut down for about five weeks, the Texas Portland Cement Company's plant, west of Dallas, Tex., has resumed operation. During the period in which the plant was shut down a number of repairs were made and it is expected that the plant will now have a capacity of about 3,000 barrels of finished cement a day. It has 300 employees on its pay roll.

The Portland Cement Co., Chamberlain, S. D., held its annual meeting and elected the following officers: President, Arthur Hill; vice president, J. A. Anderson; secretary, E. E. Dye, all of Chamberlain, S. D. Executive committee, C. J. Bach of Hurley, S. D.; Arthur Hill and E. E. Dye; directors, E. F. Scott and N. W. Egleston, of Chamberlain; A. M. Sogn, of Vienna; A. G. Schmidt, Madison, S. D., and B. H. Thomas of Des Moines.

The Star Portland Cement Co., of Clearfield county, Pennsylvania, has purchased a 10,206-acre tract of land from A. R. Balcom of Philadelphia, and others. The purchaser will let contracts within a short time for the erection of a one million dollar plant which will have a capacity of about 4,000 barrels of cement a day. The tract is located on the low grade division of the Allegheny Valley railroad near Clearfield and Dubois, about seventy-three miles from Pittsburgh.



# QUARRIES

## INTERSTATE STONE MANUFACTURERS' ASSOCIATION.

According to program mapped out at the annual meeting of the old Ohio State Stone Club, the committee consisting of George Keck, M. P. Goetschius, Allen Patterson, W. A. Alsdorf, A. Acton Hall and L. H. Hawblitz to proceed with the incorporation of the organization not for profit under the laws of Ohio went to Columbus and secured a charter.

A called meeting of the membership was held at the Boody House in Toledo on February 27 for the purpose of formally organizing under the charter. There was a good attendance of the road contractors and rock crusher operators, and a majority of those who were not present sent their proxies.

A. Acton Hall acted as chairman of the meeting of prospective stockholders and called upon George Keck, chairman of the incorporating committee, to report its action and to present the charter, as issued by the Secretary of State, with tentative constitution and by-laws for the government of the association. Mr. Keck went into the matter very fully, explaining all the details to the full satisfaction of all those present. The action of the committee was cordially approved, and a recess was taken for luncheon and for the stockholders to come up and attach their signatures to the subscription sheets.

There was some discussion of some of the by-laws, but eventually every one of the former members of the old Ohio State Stone Club became stockholders of the Interstate Stone Manufacturers' Association.

The following officers were elected to carry on the work of the association for the ensuing year:

A. Acton Hall, president.  
Morris P. Goetschius, vice-president.  
L. H. Hawblitz, secretary and treasurer, pro tem.  
Board of trustees—A. A. Hall, W. H. Kilcawley, R. G. Spencer, Alex. Wagner, Allan Patterson, M. P. Goetschius, F. J. Quilter, George Keck, George France, Carl Reinheimer, L. H. Hawblitz, William Taylor.

ROCK PRODUCTS was elected unanimously as the only honorary member of the organization, and at the same time official publicity organ of the membership.

After an hour or more of open discussion as to the policy and details of work to be carried out the meeting adjourned sine die.

A plan has been formulated to construct about 1,000 miles of trunk highways in the State of Michigan. This plan received consideration by the State Legislature two years ago but was defeated. A bill will be introduced by Senator Allswede of Bay county providing that a fund, derived from a specific tax of 25 cents per horse-power on automobiles will be established to defray the cost. It is proposed that 50 per cent of this will be used for the trunk highway work, and the other 50 per cent go into the county reward fund.

## MODERN PLANT OF NATIONAL LIMESTONE COMPANY OF WEST VIRGINIA.

Of general interest to all is the building of new and modern plants and the installation of their necessary equipment for the manufacture of products essential to the welfare and progressive tendencies of mankind. The hypothetical erection, with its theory-built method of operation, has always merited the application of thought which students of progress have given it, and the recitation of its plan of construction has always held the attention of those engaged in the promotion and furtherance of quality and output-increasing facilities and their co-ordinate economic maintenance.

But of still greater interest is the established and tried-out new method which illustrates by its eminence the sought-for economical quality and quantity enhancing improvements in the production of all commodities. We have printed in the past many articles descriptive of the latest methods for the conduct of the various enterprises in the fields with which our readers are interested, and it is our aim to disseminate such information and newly gathered data in the future pertaining to the development and expansion of ideas as will broaden the horizon of modern attainments. The new plant of the National Limestone Company of West Virginia will doubtless be of interest in this connection.

[By G. P. Grimsley, Consulting Geologist.]

For twenty years the Martinsburg, W. Va., district has been known by the Pittsburgh iron and steel furnaces as an important source of high-grade fluxing limestone. When a limestone is in demand for flux at points 230 to 300 miles distant from the quarries it must be of exceptional purity. With the development of these quarries on a larger scale the stone plants have likewise grown in size and completeness of equipment, culminating today in the largest stone crushing plant in the East (except that at Tompkins Cove, N. Y.). It is owned and operated by the National Limestone Company, of Martinsburg, W. Va.

In the quarry a Bucyrus 110-ton shovel loads the stone into 15-ton standard gauge steel skip cars, which are hauled in train up the 4 per cent incline of the quarry and to the plant by standard gauge locomotives. The quarry ledge is seventy feet high at present, though the stone has been tested by drills 60 feet deeper.

The plant is a modern steel and concrete building, covering a ground space 50 x 220 feet, and is 60 to 110 feet high. The lower building at the right has two floors. On the upper floor is the hopper and railroad tracks; on the lower are the crusher and motors, with a pit below 36 feet in depth containing the lower discharge hopper, tracks of the skip hoist and smaller motors. The tower building, seven stories in height (110 feet), contains the screens, storage hopper and bin. A third building to the south, not yet erected, will contain the fine grinding machinery and sorting screens for by-product manufacture.

The Edison crushing rolls are used, two in number, seven feet long and six feet in diameter. The rolls weigh 45 tons each and are revolved by two 200-horsepower motors at a velocity of 175 revolutions per minute. The receiving hopper will admit blocks 7 x 10 feet in size. A block of 20 tons

in weight was crushed at this plant in 25 seconds' time. This would be at the rate of 3,000 tons an hour. The capacity of the elevator removing stone from the crusher at this plant is 1,000 tons an hour. The stone is removed by a double track skip hoist. This hoist incline is 140 feet long, set at an angle of 50 degrees, and leads from the bottom of the pit under the roll crusher to the top of the screen house. On the incline are two tracks on which travel two steel skip cars, each weighing 10 tons and holding 20 tons of crushed stone. The hoist automatically dumps its load at the top from the loaded car, while the empty one is filling at the bottom of the incline. A 375-horsepower motor operates the hoist through a magnetic automatic switchboard.

The stone screens of Edison patent consist of three sets of stationary bars set at proper angle. The entire plant is operated by electricity. The power is generated by water fall on the Shenandoah river, 19 miles distant, and sold at reasonable cost to the National company. All the wiring is in iron conduits, avoiding the danger of fire and life. In the plant for power development there are seven motors and three switchboards with automatic control magnets. The company owns over 1,000 acres of land, estimated after diamond drilling of the area, to contain 36,000,000 tons of low silica limestone and 300,000,000 tons of lime and ballast rock. Most of the flux stone is shipped to Pittsburgh and some even into northern Ohio.

The Bachman Sand & Stone Company, Allentown, Pa., was recently incorporated with \$200,000 capital stock by Henry S. Reed, of New York, and his associates, and Milton H. Bachman and James L. Schaadt, of Allentown, and their associates. The company has purchased the sand and gravel business and plant of M. H. Bachman & Co., they being one of the leading producers of sand and gravel in the Lehigh valley. The company also has secured under royalty lease for 30 years 23 acres in the city of Allentown containing millions of tons of sand and gravel. The sand and gravel plant today has an earning power of \$17,500 a year, but the company will increase its capacity four-fold. The company has purchased two of the Fisher hydraulic reconstructed stone or concrete machines, a large one for manufacturing dimension stone and trim and a small one for the manufacture of two-piece wall stone. These machines will be installed in a factory 250x50 feet, in which all of the best appliances known to the industry will be brought into play. Curing will be done by the steam process, and an overhead trolley system will be used. The building operations of Allentown last year amounted to \$2,500,000, and by using the electric car line and the automobile trucks of the company a prosperous community of 250,000 people are reached economically. Mr. Reed brought into existence the Standard Concrete Co., of Poughkeepsie, N. Y., and the Peekskill Stone Co., of Peekskill, N. Y. The Jaeger machine is used at Poughkeepsie and the Fisher machines at Peekskill. It is said that the Peekskill Stone Co.'s plant is a model of its kind. It is a creation not patterned from any other plant and is the result largely of Mr. Reed's and Mr. Fisher's creative ability. The plant will contain certain improvements which will make it one of the most efficient in its working capacity in the country, and the field at that point for business is exceedingly good.



PLANT OF NATIONAL LIMESTONE CO.



QUARRY NO. 1, NATIONAL LIMESTONE CO.

**ILLINOIS QUARRIES HAVE BUSY SEASON.**

Springfield, Ill., March 20.—Quarries in Illinois have had the most prosperous winter season in their history, due to the open weather, and have had few interruptions. The Gray-Wimmer Construction Company, of Alton, increased its force recently, when the warm spell came, and got out a large number of orders which might have had to go until spring.

Two large electrically driven stone crushers have been installed at Ritchie, and will be ready for do quarrying and dealing in stone, also general construction, mercantile and manufacturing business. The incorporators are Andrew J. Ryan, Thomas J. Condon and Lee H. Sachs.

It is reported that there is a good opportunity for a rock crushing plant at Marshall. Marshall township has voted to construct a large quantity of hard roads and there is a good demand in that neighborhood for crushed limestone for fertilizing.

Ten miles of stone roads are planned for Middleport township in Iroquois county. In April the voters will pass upon a proposition to levy a tax of fifty cents on the \$100 for this purpose. The town of Iroquois, near Crescent City, may unite with this project and build a six-mile road to connect with it.

Two large electrically driven stone crushers are being installed at Ritchie, and will be ready for operation in the early spring to furnish stone for ballasting the Wabash railroad tracks between Chicago and St. Louis.

**CONTRACTING FIRM PURCHASES QUARRY.**

San Francisco, Cal., March 17.—The city of Oakland has just let street improvement contracts amounting to about \$200,000, the work being divided between the Barber Asphalt Company, the Oakland Paving Company and the Ransome-Crummey Company.

The Daniel Contracting Company, of this city, which obtained the contract for the sea wall from Howard street to China basin, has purchased a quarry at McNear's Point on the Marin county side of San Francisco Bay, which the firm will equip with steam shovels, "dinky" locomotives and twenty-yard cars. The quarry is already equipped with crushing machines, the plant having for many years been used for emergency work by San Francisco contractors. As a matter of fact, the quarry has not been equipped to get rock out sufficiently cheap to permit of its being placed on the market and it took a big contract like that awarded the Daniel firm to allow of its proper equipment.

**RECEIVE CONTRACTS FOR LIMESTONE DUST.**

Detroit, Mich., March 20, 1913.—Commissioner of Public Works J. J. Harrer, of Detroit, has entered into a contract with F. C. Ortmann to furnish all the receiving basin stone required for his department for the year ending January 1, 1914.

H. Houghton and Sons Co. and the Ohio Marble Co. were the low bidders for furnishing the department of public works, Detroit, with limestone dust for use at the municipal asphalt plant. Commissioner Harrer deemed it advisable to contract with both companies to avoid any delay in delivery at the asphalt plant.

For furnishing 10,000 tons of binder stone to the municipal asphalt plant, Detroit, f.o.b. cars, the Solvay Process Co. and the Thornton Dixon Co., received the contracts.

**LARGE PRODUCTION OF LIMESTONE.**

More limestone is produced in the United States than any other kind of stone, not excepting granite, and its value is also greater.

The value of the limestone output in 1911, according to the United States Geological Survey, was \$33,897,362, a decrease of \$706,316 from the figures of 1910. The decrease in value was chiefly in limestone used for fluxing. These figures do not include the value of most of the stone that is burned into lime, nor a large quantity of limestone used in the manufacture of Portland cement.

The principal states that produced limestone in 1911 were, in rank of value, Pennsylvania, Ohio, Indiana, Illinois, New York and Missouri, each having an output of more than \$2,000,000.

**CRUSHER COMPANY BUYS NEAR PLANT.**

Another parcel in the block bounded west by Ninth street and south by Montgomery street recently was bought by the Williams Patent Crusher and Pulverizer Company, St. Louis, Mo., which has its plant in the block. The parcel is improved with a residence and includes a frontage of 23 feet. The seller was Mrs. Ida Schweiger. The deal was handled by W. H. & E. J. Hauschulte.

**ROCK EXHIBIT INTERESTS ROAD MEN.**

The enrollment at the second annual road school which was held in Madison, Wis., recently, reached nearly 250 persons who were vitally interested in the various addresses of the highway commissioners. Much knowledge of a technical nature in road building was gained by those who attended. A large exhibit in the way of views and other things of a nature to interest these disciples was a feature. Views of culverts and bridge work, and also pictures of Southern roads were shown. Collections of the various limestones and the cementing and crushing qualities were among the rock displays.

F. M. Sargent, highway commissioner of Rusk county, told of some of the difficulties in building good roads in the state. He stated that the swamp drainage problem is a serious cloud in the path of good road building at a reasonable cost.

D. M. Weeks, an expert in the handling of explosives, explained their use in quarry blasting. He spoke of the lack of caution in blasting and the methods of thawing and handling dynamite, laying special emphasis on the low freezing dynamite and its proper use. He advised the use of a wooden pin rather than an iron one as a tamp being less dangerous.

The discussion of the day labor system as against contract labor was participated in by many of the delegates, although no definite conclusion was arrived at, as local conditions to a large extent control the labor problem. It was thought, however, that the contract plan for general state work followed closely by day labor gave the best results.

F. M. Balsay, of the Wisconsin highway commission, gave a chalk talk illustrating his remarks by diagrams on the construction of the crushed stone macadam roads. He said that after the survey, the plans then made should be carried out as nearly as possible, allowable by local conditions. His talk was followed by a discussion of the best methods of building gravel roads in order to bear heavy traffic.

J. H. Kuelling gave his experience in constructing concrete roads in Milwaukee county, where the first and longest road in that state was built, a distance of six miles. A pleasing feature was the moving pictures, showing the construction of concrete roads in Wayne county, Michigan, where the first road of this sort was built in the United States.

**OCEAN-TO-OCEAN ROADWAY ASSURED.**

Preliminary organization of the Southern National Highway Association has been effected and at a convention held at Asheville, N. C., on January 30, this was made permanent, says Concrete Era. The organization will include ten states of the Southland, the purpose being to secure a permanent highway across the United States, swinging around the Atlantic coast to the national capital. This would connect with a projected highway through New England to the Canadian line, and at San Diego with the Pacific highway through California, Oregon, Washington, to British Columbia. When this is completed the auto tourists may travel over a magnificent road in a great circle around the United States.

Col. Dell M. Potter, of Clifton, Arizona, was elected temporary president; D. C. Collier, of San Diego, who is president of the San Diego Exposition in 1915, general vice president, and Fred Jackson, of San Diego, treasurer. Each state is to select a route through its territory. The plan for permanent organization is to elect some prominent Southerner, probably a governor of some state, as president. Congress will be asked to appropriate \$25,000,000 toward the construction of the highway.

San Diego has been made the southern terminus of the Pacific Coast highway skirting the ocean from Vancouver, B. C., and the western terminus of the California state highway extending inland to El Centro. All of this road would become a part of the round-the-country circle of the proposed highway. The suggested route would give to auto tourists the shortest and most direct route from ocean to ocean, open to travel in comfort almost the entire year, with easier grades through the mountains than any other that could be devised.

**GOOD ROADS DELEGATES.**

At a meeting of the executive committee of the Texas Good Roads Association at Austin, Tex., recently, delegates were named to the next meeting of the National association to be held in Washington, D. C., March 6-7, as follows:

O. B. Dunlap, Waxahachie; J. W. Warren, San Antonio; George W. Baneroff, Orange; C. H. Verschoyle, Dallas; D. E. Colp, San Antonio; R. J. Potts, College Station, and Homer D. Wade, Stamford.

The good roads enthusiasts met with the Senate and House Committees on Roads and Highways. They are pushing the Terrell bill creating a State highway commission and the office of State highway engineer.

**ORGANIZE BIG LIMESTONE COMPANY.**

Petoskey, Mich., March 3.—Development of extensive limestone deposits on the shore of Lake Michigan, in Mackinaw township, Cheboygan county, is promised following the closing of a deal last week in which W. G. Durrell and associates of Cincinnati obtained from the Petoskey-Mackinaw Real Estate Company an eleven-year lease of the tract containing the limestone deposits.

The lease includes an option for purchase within four years. Mr. Durrell will organize the Cheboygan Limestone Products Company and expects to be ready in the early spring to begin work on the property. Meantime investigation will be made to determine the depth and extent of the limestone beds and arrangements will be made to construct a spur track of the Michigan Central railroad to the property.

The property comprises some 700 acres, situated on Mill creek, about four miles south of Mackinaw City. It is known as the "Old Dausman tract."

The Genesee Limestone Products Co., Mendon, N. Y., has been incorporated with a capital stock of \$150,000. The incorporators are John E. Maher, Elen L. Yeomans, Otto F. Kieffer. This company was incorporated under the laws of New York state at Albany, N. Y., on February 28th.

The Consolidation Stone & Mining Co., Pittsburgh, Pa., believes the prospects for a lot of road work early in the spring are first class. In every respect the outlook is good, they report. Many building projects in Pittsburgh are coming forward to the contract stage which will require considerable stone also.

San Francisco, Cal., March 18.—W. W. Dennis, Monadnock building, this city, manager of the McNear Brick Agency, has taken up the agency for the crushed rock of C. P. & C. A. Wetmore, who have leased the McNear quarry in Sonoma county and are putting in a lot of new machinery. The company is operating largely for harbor work, but will have considerable material to sell in the local market.

Its machinery having worn out after twenty years of service, the big rock-crushing plant at Folsom penitentiary has been closed down indefinitely.

The West Virginia Limestone Co., of Thompson Hill, Wheeling, W. Va., has let the last of its contracts for the installation of its plant at the quarries. When the limestone plant is completed, which will be within a few weeks, the company will have facilities for placing its product on car or wagon for local or distant consumption. It is understood that this company has also made an offer for the incline railway at Mozark Park and will install a gyratory crusher at the bottom of the hole, using the engine rails and machinery of the railway to supply the same with stone. The two plants, when running, will be able to turn out from 600 to 1,000 tons of finished product per day.

A new quarry was opened this week eight miles from Nashville, Tenn., for the Newsome Crushed Stone and Quarry Company, who recently abandoned their old quarry near Newsome Station. The new site is about a half mile from Asylum station on the N. C. & St. L. R. R. It is said that the quarry will last for many years. The old quarry near Newsome Station has been operated by the company for many years, but the remaining rock is now so far from the crusher that it was thought best to abandon it altogether. The new site will offer a face of about seventy-five feet of good Carter creek limestone and besides has the advantage of being situated very near the railroad. A number of tenant houses will be erected for the workmen and a commissary will be put in.

Pittsburgh, Pa., March 18, 1913.—The Craig Stone Company and the Clydesdale Stone Company were both busy last month stripping large operations at their western Pennsylvania quarries for spring work. They use a steam shovel and have everything in good shape now to turn out a big supply of ballast and road stone and also to crush a large amount of stone for lime.

The Pennsylvania Lines are now in the market for their ballast stone for 1913 for the Northwest system. Definite amounts and deliveries will be announced in a few days.

The plant of the Carbon Limestone Company at Carbon, near Youngstown, Ohio, was badly damaged February 18 by an explosion from a stick of dynamite. Foreigners were drilling a hole in the rock when the explosion occurred.



Terre Haute Stone Works Company, Terre Haute, Ind., \$15,000; to quarry and deal in stone; E. D. Chadwick, G. T. Stevens, S. Cleland.

Genesee Limestone Products Company, Incorporated, of Menden, N. Y., \$150,000; John E. Maher, Elen L. Yeomans, Otta F. Kiefer, Wayland, N. Y.

The United States Crushed Stone Company of Portland, Me., has entered Indiana. The capital stock is \$850,000. James E. Manter is president and C. D. Fullerton secretary.

Roeder-Greemann Stone & Construction Company, Quincy, Ill., capital, \$25,000; quarrying and construction work. Incorporators, Albert Roeder, Henry C. Greemann, Otto Roeder.

Roeder-Greemann Stone and Construction Company, Quincy, Ill. Capital stock, \$25,000. Quarrying and construction work. Incorporators, Albert and Otto Roeder and Henry C. Greemann.

The work in Green's quarry at Stone City, Ia., is opening up in good shape and men are arriving daily. The new steam shovel, recently installed, is a pronounced success, and Stone City will have one of the biggest seasons in years.

It is reported that the Petoskey-Mackinaw Real Estate Company, Petoskey, Mich., has leased its lime rock holding in Cheboygan county to Cincinnati men. The transaction is of considerable import, as the lime industry in Petoskey, Elk Rapids, Bay Shore and other northern Michigan cities is exceedingly prosperous.

The Peach Bottom slate quarries, with manufacturing plant located on Slate Ridge, in Harford county, near Belair, Md., were sold at trustee's sale in Belair recently to the Proctor Slate Company, a former owner, for \$175,000, subject to a mortgage of \$65,000. The property was bid in by George Proctor for the company.

Officials of the Hercules Sandstone Company, Centralia, Wash., announced recently that they are about to install \$20,000 worth of new stone-crushing equipment in its Tenino quarry, the new machinery to include two electric hoists of 30 tons capacity. The company will resume shipments of stone for the Grays Harbor jetty work April 1.

Fire of unknown origin destroyed a machine and engine building at the plant of the Columbia Quarry Company, one mile northeast of Columbia, Ill., recently. It is estimated the damage was \$20,000, covered by insurance. Charles H. Krause of 4454 Forest Park boulevard, St. Louis, is president of the quarry company, which suffered a \$50,000 fire loss in another quarry half a mile away about six months ago.

The Simpson County Limestone Company, located near Woodburn, Ky., will begin operations shortly, now installing much of the needed equipment. Among machinery purchased recently are a 50-ton pulverizer and a 100-horsepower boiler. The company will crush stone for agricultural use, besides making ballast for railroads and concrete for pikes. Edward Pearson, of Franklin, Ky., is secretary of the company, Louis Mack being plant manager.

Official bulletin No. 18 of the Ohio State Highway Department, James R. Marker, state highway commissioner, makes the following statement: "In the seventeen months of official service, beginning with June 17, 1911, there have been contracts awarded for 222.16 miles of improved roads under the direction of the highway department. From the inception of the department in 1904 up to June 17, 1911, the total of the contracts awarded reached but 198.57 miles. During the term of the present commissioner 140.79 of the miles of improved state roads have been completed as compared with 107.03 miles previous to that time."

A rock crushing plant capable of handling from 160 to 200 tons of crushed stone daily, and a brick manufacturing establishment turning out approximately 10,000 "Unit" brick daily, will be erected in Charlotte, N. C. Options have been secured on approximately 135 acres of land, including all of Spencer Mountain in Gaston county and the rock crushing and brick manufacturing plants will be located at this point. F. S. Tucker, one of the best known and most capable engineers in that section will be general superintendent of the rock crushing plant with Milledge B. Malone, formerly with the Atlantic Bithulithic Company, quarry foreman. James C. Levi will be sales manager.

## SECOND CLAY SHOW

### The Chicago Coliseum Filled With the Highest Attainment of the Clay Workers' Art.

The Second Annual Clay Show, given under the auspices of the Clay Products Exposition Company, was held in Chicago at the Coliseum February 26 to March 8, inclusive. It was a great show, illustrative of all the various branches of clay products, the most important and attractive of which were the exhibits of face brick, which showed a variety for color and texture which was far beyond the expectations of even those who are well versed in the matter of building materials.

The utility branches of the clay industry not intended to meet the eye in the finished product, such as sewer pipe, partition tile and common brick, were also shown in all the various adaptations and developments known to the present markets of the world.

Those branches of the clay industry devoted to enameled brick, encaustic tile and art production generally were well represented by a number of exhibits of the leading pottery concerns, which were veritable palaces of art.

In fact, the skill of the brick layer was in evidence in a number of the exhibits, for there were



R. C. PENFIELD, PRESIDENT CLAY PRODUCTS EXPOSITION CO.

exhibits of common brick of the very cheapest grade which were made beautiful by means of the lines, the reliefs, the indenture and the execution of art designs which made the cheap material all the more glorious by means of the handiwork of the mason.

The exhibits represented a total expenditure, as has been stated from authoritative sources, of more than \$2,000,000, and more than 5,000 persons were directly engaged in their construction. There were no less than 300 exhibits of clay products of all the various branches of clay industry, some of the large ones containing as many as 4,000 or 5,000 brick.

There was a steady attendance throughout the eleven days of the show and many of those who attended were directly interested in the subject of brick selection for building which they have under consideration, and there is no doubt that this show was well worth the price to those who contributed by means of their exhibits and their attendance.

The credit for the success of the great undertaking is due to R. C. Penfield, president of the Illinois Brick Company, and the acknowledged leader of the brick and clay industry of America. Mr. Penfield is a man of wonderful personality, of unlimited capacity and of marked business success in all of his undertakings, and not the least of these is the great clay show.

H. S. Simpson, assistant manager of the Exposition Company, and his assistant, Mr. Fletcher, were untiring in their efforts to have every detail of the

show fully worked out, that it should run like clock work and be a pleasure to each and every visitor who attended. This was well accomplished and the great show was particularly enjoyed by the 2,000 or more clay workers who were in Chicago during the clay show attending the various conventions of the organizations of the various branches of the brick and clay working industry of the country.

The second clay show was essentially a gathering of the clans of great workers, for practically everybody in that field made it a point to be in Chicago during the clay show and take part both in the conventions which were being held in the principal hotels, and using the show as their recognized grounds for a meeting place. It was a pleasant, instructive and profitable occasion, assembled of many parts into one composite and well-rounded whole, and it is one of those periods which will be long remembered by those who participated in it.

Not the least among the exhibits, from the point of attraction, was the prize house, a \$2,000 workingman's home which was built to show how much comfort and convenience could be obtained for so little money by the use of clay products. This house was won by John Mulligan, 400 Webster avenue, Chicago, by guessing the exact number of marbles contained in a glass jar, there being 5,377 marbles by actual count.

Color figures both in the brick laying mortars in the bricks and in other clay products, and one of the most attractive elements of the whole show. Fred Bogk, of the Ricketson Mineral Paint Works, Milwaukee, Wis., remarked to a Rock Products scribe that not less than 80 per cent of all the color that was so pleasing and effective to the eye were of the Ricketson make and this company had a very attractive exhibit in the show, in which their mortar colors, both in the crude and the manufactured state and the colors mixed so as to produce various shades for mortar and stucco work, were prominently shown.

One of the most fascinating factors of the show was a practical demonstration in clay modeling by classes from the Chicago Art Institute under the direction of Chas. Mulligan, the renowned Chicago sculptor. This was a point of unending interest to the visitors, many of whom had never witnessed the actual process of practical sculptors at work before.

The following societies held their annual meeting during the clay show, many of them participating in several of the conventions as their connection with the industry attracted:

National Brick Manufacturers' Association; National Paving Brick Manufacturers' Association; Ohio Face Brick Association; Wisconsin Clayworkers' Association; International Clay Products Association; Building Brick Association of America; American Face Brick Association; National Clay Machinery Association; Iowa Clay Products Manufacturers' Association; National Terra Cotta Society; Illinois Clay Manufacturers' Association.

#### Ancient Order of Chaldeans.

On Wednesday evening, March 5, a new secret society was born at the Auditorium hotel in Chicago which was made up entirely of clay workers. Several hundred members were enrolled and a mystic ritual was worked out on a class of candidates for the edification of the members. The society is to be known as the Ancient Order of Chaldeans, and the emblem of the order is the winged bull with woman's face, known as the Babylonian bull. The lesson it teaches is founded on the story of the oldest people in the world, who lived in brick houses, walked on brick streets, ate from clay dishes and cooked in clay utensils nearly 4,000 years before Christ. It is understood that the order is purely of a social character and to encourage the principle of fraternity amongst the clay workers of the various lines. The initiation ceremonies were followed by a buffet banquet and a cabaret entertainment.

The Supreme Temple of the Ancient Order of Chaldeans elected the following officers: W. D. Gates, Supreme Venerable Nebo; Wm. Schlake, Supreme Learned Fo; Jos. W. Moulding, Beloved Profit Ra; F. W. Lucke, Supreme Philosopher Ren; Iverson C. Wells, Keeper of Tablets Mo; Lewis D. Binyon, Keeper of the Shekels Bo; W. J. Gilbert, Chief of the Guards Rab.

The Supreme Priests, twelve in number, were elected as follows: Frank B. Ver Nooy, Supreme High Priest; Lewis O. Binyon, H. G. Bowstead, E. K. Carmack, R. M. Combs, James A. Hogan, Herman L. Matz, C. L. Rorick, H. H. Rosenberg, W. M. Varney, Iverson C. Wells and F. G. White.

The Supreme Temple will be permanent headquarters, located in Chicago, and the subordinate temples will receive charters from the Supreme Temple.

The first local temple to be organized was Chicago temple No. 1, which has the following officers: Venerable Nebo, Wm. P. Varney; Learned Fo, H. G. Bowstead; Beloved Profit Ra, E. K. Carmack; Most Wise Philosopher Ren, R. M. Combs; Keeper of the Tablets Mo, E. C. Kimble; Keeper of the Shekels Bo, Herman L. Matz; Worthy Rab, F. G. White—all of Chicago.

At the first initiation there certainly was great doings, for it lasted until the wee small hours of the morning and everybody was present, whether he participated in the doings or not, was willing to say next day and ever after that he got more than his money's worth. The applications for membership in Chicago temple No. 1 indicate that the organization will be busy for some time to come and the supreme council have been petitioned for several local charters, which will proceed to make Chaldeans and create a wider and stronger fraternity amongst the class of workers of this land.

Johnnie Maroney, the candy kid of the American brick yard, was out with bells on every day and night of the brick convention.

E. K. Carmack, of the Wisconsin Lime and Cement Co., of Chicago, is great in his character of Beloved Prophet of the Chicago Chapter of the Chaldeans. No matter where you put him, that old Scot is sure to make good.

George S. Bartlett, of Milwaukee, has got to be a road specialist amongst his many accomplishments, and he is just as good in this as in all other lines. In fact, George is universal in his tastes and applications and consequently naturally connected at last.

P. L. Simpson, of Chicago, the veteran brick plant specialist of the American Clay Working Machinery Company, was on the sick list during all the brick-makers' conventions, and his face was missed from many of the jovial groups that go to make the meetings sociable. He is a famous dialect story teller.

#### WISCONSIN'S PROPOSED WORKMEN'S COMPENSATION LAW.

Wisconsin employers in most lines of industry are highly interested in a bill which has been introduced in the Wisconsin legislature, which, if passed, will have the effect of bringing most employers of labor under the workman's compensation law. The bill, introduced by Assemblyman George Bingham at the instance of the Wisconsin Industrial Commission, which administers the compensation law, provides for the following changes to be made to the law as it now stands:

All employers automatically brought under the bill unless they protest.

The contributory negligence defense abrogated, save where less than four people are employed. Specific indemnities fixed for injuries, as for the loss of an eye, hand, etc.

Permanent disability to be compensated by one and one-half times the death benefit.

Penalties of 15 per cent extra for employers who fail to provide safety appliances, and a similar deduction for negligent employees.

Shipping men are elated by the records being established daily in the discharging of cargoes of iron ore at Pier 13, Port Richmond, Philadelphia, Pa., where a modern electric crane is used. Ore has been removed during the past week at the rate of a ton every fifteen seconds. The fastest unloading on record occurred a few days ago. The British steamship Chiswick, from Santiago, with 4835 tons of the product in 19 hours and 55 minutes, out of which three hours were expended by the workmen for their meal time. The cargo was lifted from the holds of the vessel at the rate of more than four tons a minute and 250 tons an hour. The steamship Tancred, with 5858 tons on board was unloaded in 21¼ hours on the day previous or about 231 tons an hour. It is firmly believed by many that the time of discharging cargoes at this port is less than any other port. The iron pier where the records were made is located in the Port Richmond yards of the Philadelphia and Reading Railway. It is equipped with a powerful electric crane with two arms, from which are suspended two "grab" buckets. Both holds of a steamship can be worked at once. The buckets scoop down and "grab" the cargo as it is propelled along by the steel arms. Each grab nets from five to eight tons. The arms sweep back and dump the load into large steel containers, which open into railroad cars placed directly beneath them. In the absence of cars the containers are capable of holding hundreds of tons until cars are obtained.



#### LOUISVILLE CLAY NEWS.

Louisville, Ky., March 18.—One of the leading events of the past month has been the formation of the Clay & Mineral Producers' & Manufacturers' Association at Paducah, Ky. The object of the organization is to advance the clay and mineral industry. Brick and clay men of Kentucky, Tennessee, Georgia and Mississippi had representatives on hand. It is planned to build a washing-plant at Paducah to separate sand and impurities from clay, and to have the government establish a testing station in that city, if possible. J. W. Williams, of Hazel, Ky., who has taken an active interest in the proposition and was largely responsible for the meeting, was elected president of the association. H. I. Neely, also of Hazel, was elected secretary. The following were named as a board of directors: M. H. Riddle and C. L. Vanmeter, Paducah, Ky.; R. L. Garner, Mayfield, Ky.; W. C. Johnson, Paris, Tenn.; John Sant, Whitlock, Tenn.; R. H. Girard, Henderson, Tenn., and C. W. Morgan, Macon, Ga.

Owen Tyler has secured one of the nicest contracts which has been awarded here recently, in the brick lining for the new swimming pool being built at Fontaine Ferry park, one of the local summer resorts. About 20,000 white enameled brick will be used. The same contractor will supply about 150,000 brick for the new power house being erected by the Louisville Railway Company on High street.

The Coral Ridge Clay Products Company, a new concern which is building a plant at South Park, about ten miles from Louisville, is progressing nicely, though the completion of the plant has been postponed because of several delays. Most of the machinery is on the ground, though little of it has been set up. The boilers have been installed and most of the buildings are nearly completed. The kiln is about half finished. Work will be pushed and President W. D. Roy believes the company will be running with plenty of orders within sixty days, with a capacity of 70,000 brick. The company is not now taking orders for future delivery because of the uncertainty of the date of completion of the plant.

The same statement which is true of the Coral Ridge Clay Products Company also applies to the new plant of the Louisville Fire Brick Company, which is going up at Grahm, Ky., in Carter county. Another two months will elapse before that branch is ready to take up the manufacture of fire brick. The local plant has maintained operations during the entire winter, finding business strong enough to justify that step. When the new plant is completed the company will have a daily capacity of 100,000 from the two.

The West End plant of the Hillenbrand Brick Company has resumed work, while that in the eastern section of the city has kept up the pace it set last fall. The scarcity of dry clay forced the West End plant to close down temporarily, but both are now working, with a daily output of 400,000. Officers of the company are contemplating improvements in both yards and will shortly purchase modern equipment.

The status of the old Hydraulic Brick Company has taken no new aspect, the plant still being on the market. A. Dumesnil, president of the company, is still in Los Angeles with his daughter, but is expected in Louisville in the near future.

The Starks building, at Fourth and Walnut streets, is being finished up rapidly, the Bannon Sewer Pipe Company providing the terra cotta and the Kentucky Vitrified Brick Company the brick. Both contracts will be wound up in another month or two.

The Fort Wayne Brick Company, Fort Wayne, Ind., has increased its capital stock \$64,000.

The Malakoff Press Brick Company has increased its capital stock from \$100,000 to \$250,000 for the purpose of enlarging its plant at Malakoff, Tex., and making other improvements.

About 350 carloads of tile will be used in the new Lamm drainage district near Eldora, Iowa. For the first 6,000 feet the tile used will be forty-two inches in diameter, the tile alone costing \$21,000; for the next 5,500 feet thirty-nine-inch tile will be used, costing \$13,750. Various other sizes will be used in smaller quantities.

#### BRICK CONCERN ELECTS OFFICERS.

Milwaukee, Wis., March 17.—All of the brick manufacturing concerns in Milwaukee sent samples of their brick by mail to the Chicago Clay Products Exposition for use in the erection of the model brick house at the exposition. Among the local concerns which forwarded brick were the following: Burnham Brothers; Wisconsin Composite Brick Company; Chicago Brick & Supply Company; Standard Brick Company; M. Davelaar Son & Company.

One mile of street paving will be laid in Jefferson, Wis., during the coming summer. Brick and concrete will be offered.

John Q. Burnham, Milwaukee brick manufacturer, who died on August 5, 1911, left property valued at \$860,213.52, according to the schedule recently filed in the Milwaukee probate court. Of this amount \$526,074.01 is in personal property and \$334,139.51 is in real estate. Mrs. Burnham and H. T. Ferguson were made executors under the will.

The annual meeting of the stockholders of the Barron Red Pressed Brick Company, of Barron, Wis., was held recently and the following officers elected for the ensuing year: President, G. A. Koerner; vice-president, Otto Berg; secretary-treasurer, K. E. Thompson; directors, G. A. Koerner, J. R. Ferris, Otto Berg, J. P. Kohl and F. A. Hulbert. Plans were perfected for erecting a new dry kiln and for making various other improvements at the plant. The company expects to turn out at least 3,000,000 brick during the coming season.

Edward H. Korner, an official of the Fond du Lac Brick Works, of Fond du Lac, Wis., and superintendent of the company's plant, has purchased the interests of Math Zehren in the Wright Brothers Company at Fond du Lac.

Harry Stirdivant and N. J. Balkins have formed a partnership at Sheboygan, Wis., and will engage in the manufacture of curbing and sewer pipes.

#### DETROIT CLAY NEWS.

Detroit, Mich., March 18.—The tile business, both roofing and flooring, has been good, and the season is opening up with a brisk demand for this material.

Thomas Bros. & Co. report that business in roofing tile is increasing steadily. "I predict that this will be a big year in the roofing tile trade," said Clifford Taylor, of that concern. "Orders are being placed now for immediate delivery, which is a good indication that the building operations in Detroit will be in full swing by April 1." Despite the general advance in railroad and cartage rates, Mr. Taylor declared that by perfecting their system of handling materials they did not have to raise the prices on any material. Thomas Bros. & Co. are doing a big business in terra cotta and report that the sales are increasing every day. They are receiving orders every day for this material and it seems to be gaining in popularity, replacing stone, mostly, and meeting with satisfaction. Business has been exceedingly brisk all winter in the building brick trade with this concern. They have had plenty of orders all winter for all kinds of building brick, with the pressed brick leading, and the prospects for another banner year are very encouraging. Prices on this material are stationary and the supply is unlimited. Among the out-of-town orders the company received during the past month is one for 100,000 "art briques" for the new University of Michigan power house building, at Ann Arbor, Mich.

A. & W. Cooper have purchased the Detroit Sales Brick Company, capitalized at \$2,000. The firm name has not yet been changed.

The Fairview Brick Company has filed articles of incorporation. The capital stock is \$50,000, \$30,000 paid in; shares, \$100; term, thirty years. The stockholders are Herbert K. Oakes, 100 shares; Ralph E. Collins, 100 shares, and Fred S. Hall, 100 shares.

#### ILLINOIS CLAY ITEMS.

Springfield, Ill., March 20.—C. G. McIntosh, who has been secretary of the Springfield Drain Tile Company, of this city, has severed his connection with that company and purchased the plant of the Shale Brick & Tile Company, at Carlinville, together with seventeen acres of material. The plant, which will be operated under the name of the Carlinville Clay Company, will be equipped with new machinery.

I. S. Baldrige, of Iliopolis, has purchased the brick and tile plant of Frank E. Fligle, at Morrisonville.

The new plant of the Decatur Brick Company, of Decatur, the plans for which are now in the hands of engineers, will have a capacity of 14,000,000 bricks a year. As the company's tramway system with electrically operated cars will pass over a public highway, it will be necessary for the citizens to vote them a franchise at a special election.



## PITTSBURGH CLAY ITEMS.

Pittsburgh, Pa., March 18, 1913.—The Pittsburgh-Callery Brick Company has loads of prospects on the boards, although contracts are coming in a little slower than its officials anticipated. As building is going to start very soon the company looks for a nice trade in building brick this spring. Just now it is repairing its big plant at Callery Junction, on the B. & O.

The Kittanning Brick & Fire Clay Company announces many good projects about ready for letting. They have been running their plants all winter and have a splendid stock of all kinds of building brick on hand at present. Their specialty, promenade brick, is coming into prominence quite a little this spring.

James Stewart, of Beaver, Pa., is at the head of a company that is planning to build a large brick making plant with a capacity of 80,000 brick a day near Industry, Pa., where the company has secured 185 acres of ground. Mr. Stewart was one of the largest stockholders in the Penn Brick Yards Company at Brady's Run, Fallston, Pa., which was lately sold to a New York company for \$125,000.

A company headed by John A. Miller, of William Miller & Sons, of Pittsburgh, will build a sewer pipe and terra cotta plant near Industry, Pa., this summer.

After five years the Pittsburgh Subway Company got its ordinance passed by councils, vetoed by the mayor and then failed to have councils pass it over the mayor's veto. The backers of the company, it was shown at the last, were John B. Carter, of 42 Broadway, New York, president of the Carter Construction Company, and John H. McGibbon, of Chicago. Another subway company is now trying to get the attention of the councils.

The Kittanning Fire Brick Company has increased its capital from \$5,000 to \$40,000 in order to take care of its rapidly increasing business.

## NORTHWESTERN CLAY ASSOCIATION MEETS.

The fifth annual convention of the Northwestern Clay Association was held Tuesday, February 11, at the Hotel Raddison, Minneapolis, Minn. The attendance was fairly representative from the different parts of the state and showed a great deal of interest and enthusiasm in the topics which came before the meeting.

The election of officers resulted in the selection of E. H. Cobb of Minneapolis, president, re-elected; M. F. Rushfelt, Albert Lea, Minn., vice president; Axel Anderson of Minneapolis, re-elected as secretary, and treasurer added to his office.

The resolutions committee reported urging a readjustment of inequitable freight rates to the end of giving the brick trade a fair treatment. It also suggested that a course of brick laying be installed in the public schools of the country; also proposed that a publicity committee of the association push the sale of clay products. An industrial educational committee was appointed to co-operate with a like committee of the Builders' Exchange of Minneapolis, Minn. The afternoon was devoted to the usual routine work, reading minutes of previous meeting, president's annual address, reports of secretary and standing committees and also special committees. In the evening there was a banquet at the Hotel Raddison which was largely attended.

## KREISCHER FIRE BRICK COMPANY.

One of the oldest fire brick concerns catering to the trade of the Metropolitan district, and particularly to New York City, is the Kreischer Brick Company, whose works are located at Kreischer-ville, Staten Island, and whose New York office is located at 131 East 23d street. The old company was first organized and went into business in 1845 and has recently been reorganized, and the operations of the plant are under the direct management of John M. Campbell, formerly connected with the American Sewer Pipe Company and for many years a dealer in building materials at Passaic, N. J.

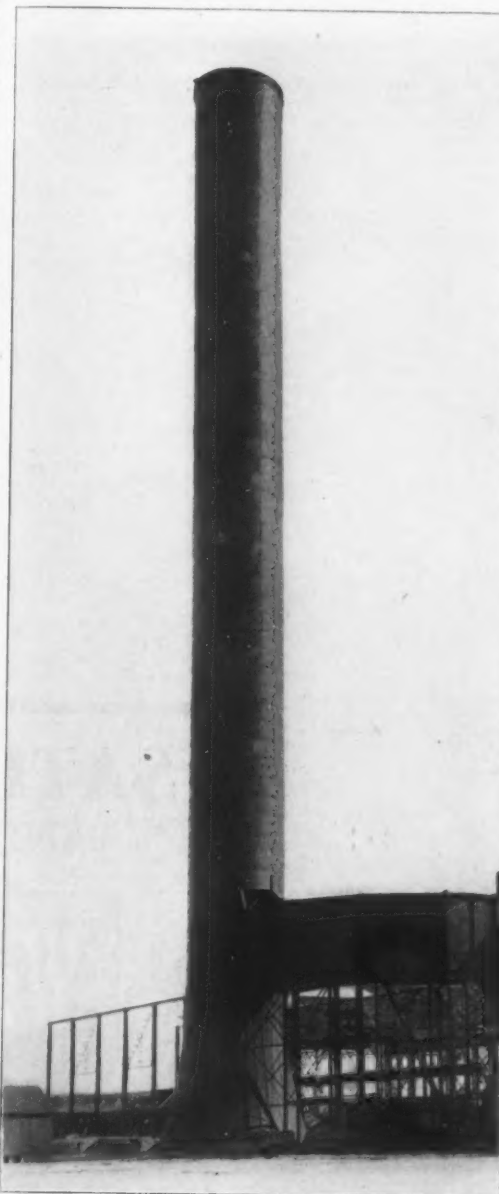
The present officers of the company are: Walter C. Shultz, president; James M. Reilly, vice-president; John M. Campbell, treasurer; Charles H. Puls, secretary, and Charles Agnew, director.

They make a fine grade of fire brick, fire brick tile and liners. They also make fancy face brick. They are engaged at the present time in putting in some new equipment so as to make the plant thoroughly up to date. The works are located on Staten Island Sound, where they have three acres of clay mine and more than 103 acres of land employed by the plant. Deliveries of the output of the plant are made by a line of tug boats and lighters which is owned and operated by the company.

A large brick kiln will be started at Billings, Montana, by A. Rousseau.

## BRICK AND TILE LINED STACK.

Concrete material, brick and tile played an important part in the erection of the new blast furnace and reverberatory stack which was recently finished at Douglas, Ariz., by the Calumet & Arizona Mining Company. This stack is 305 feet high and 25 feet in diameter. The excavation for the foundation was 64 feet in diameter and 15 feet deep, and bottomed in sand and gravel. The foundation contains 24 anchor bolts each 12 feet 6 inches long by 2½ inches in diameter, upset to 3¼ inches. They are held in place by a structural steel template on top and by individual concrete piers on the bottom. Each bolt was anchored on the bottom by two 60-pound rails 33 feet long, laid radially from the center of the foundation.



STACK OF THE CALUMET & ARIZONA MINING CO., DOUGLAS, ARIZ.

The foundation, which has a weight of 5,200 tons, was poured with hot blast furnace slag. The pouring was practically continuous and no water was used for cooling. The slag was cut down around the bolts 2 feet below the base of the stack and 2 feet inside and outside of the bolts, and a reinforced concrete collar poured.

The bell and the stack proper are of steel plate construction, there being a total weight of 225 tons of steel used. The bell is bricked with double pressed wire cut brick, standard size, 2 x 4 x 8. The brick rings are keyed with wedge brick 2 x 4 x 8. This lining follows the contour of the bell and required 28,000 brick. From the top of the bell to the top of the stack the lining is 4 x 6 x 8 tile. This tile lining is supported every 15 feet by 3 x 3 x ½-inch angle ring. This lining required 57,000 tile.

## PAVING BRICK CONTRACTS AWARDED.

Detroit, Mich., Feb. 17.—For furnishing 1,000,000 paving brick to the city of Detroit, the following contracts were awarded by the commissioner of public works: Alliance Clay Products Co. (Speedway), .892 per square yard; Carlisle Paving Brick Co. (Carlisle Block), .928; Deckman Duty Brick Co. (Medal), .926; Metropolitan Brick Co. (Metropolitan), .94; Nelsonville Brick Co. (Nelsonville), .91; Detroit Vitified Brick Co. (Champion), .83; Bessemer Limestone Co. (Bessemer), .94.

In all seventeen bids were received, the largest number in the history of the department. Prices are approximately \$1 per thousand higher than last year, due to the freight and cartage congestion.

## TEXAS BRICK MANUFACTURERS MEET.

Brick manufacturers from all over Texas met in state convention, at Dallas, on the 11th inst. Schuyler Marshall of Dallas was temporary chairman. Officers were elected as follows for the Texas Brick Manufacturers' Association, the name of the organization: C. W. Martin, Fort Worth, president; G. W. Vaughan, Seguin, vice president; T. M. Harwood, Gonzales, secretary and treasurer. These officers are ex-officio members of the executive committee, the other members being W. H. Pugh of Marshall, Ralph Root of Fort Worth and Grover Cole of Ferris.

The most important matter that came up was to endeavor to bring about through legislation the laws changed in such a manner as to make material men's liens more binding. To further this idea the executive committee will have a bill prepared and submitted to the law-makers at Austin, and will meet at Austin March 24 with a measure to be submitted to the House and Senate. Under the present statutes provisions of the homestead law conflict with the real rights of material men, both as to actual homesteads and business homesteads, and it is frequently a matter of impossibility to provide liens that will insure the collection of the full value of the materials furnished. The law also holds the owner of the building liable only up to the contract price, even though the materials alone may run above that amount, which causes losses, and serious ones, frequently, to the parties furnishing the building materials.

## MEETING OF BRICK MAKERS.

The Arkansas and North Louisiana Brick Makers' Association recently convened at Little Rock, Ark., and elected the following officers to serve the ensuing year: Garland Brewster, of Pine Bluff, Ark., president; C. N. Adams, of Alexandria, La., vice president; O. Lowe, of Gurdon, Ark., second vice president; W. W. Dickinson, Jr., of Little Rock, secretary and treasurer.

A uniform size for the manufacture of brick was decided upon. Reports of committees showed that prospects for the coming year are good.

A booklet under the title "Thermic Fire Clay Hollow Tile Fire Proofing" has been issued by the Union Mining Company, Fidelity building, Baltimore, Md., and is presented for the consideration of architects, contractors, supply houses and those interested in the erection of fireproof surfaces. The manufacture of hollow tile fireproofing is a comparatively recent line to be taken up by the Union Mining Company. However, this concern is by no means unknown to the users of high grade refractories. The booklet contains many illustrations of buildings under process of construction in which "Thermic" fire clay hollow tile fireproofing was a large factor in their erection, and also gives a carefully prepared outline of the manufacture of that product and the facilities for taking care of the business entrusted to the Union Mining concern. A view of the Union Mining Company's plant is shown in the booklet and also many illustrations of the various fireproof hollow tile which is manufactured by that concern. Although the Union Mining Company has been manufacturing "Thermic" fire clay hollow tile only a few months, it has closed several contracts for the fire clay hollow tile fire proofing required in some of the largest buildings to be erected in various cities in the East. The booklet contains a table of estimated weights of the various tiles for the information of architects, contractors, etc., and also other information of general interest to those likely to purchase this material for fire proof construction.

The American Clay Machinery Company of Bucyrus, Ohio, is distributing a booklet describing Haigh's system of continuous kilns, controlled by the American Clay Machinery Company. The booklet comprises thirty-two pages and cover, 8½x10½ inches, and is very attractively illustrated with views of the kiln printed in colors.

San Francisco, Cal., March 17.—Smith, Emery & Company state that the principal development at present is the effort of a number of manufacturers around the San Francisco Bay district to produce a good grade of paving brick. They state that fair success is being recorded in the testing laboratories and it is expected that many of the steep, hilly streets here will be paved in the near future with brick instead of cobbles, as hitherto. They cite the block on Powell street which has recently been laid with brick and which is proving most satisfactory and is being commented on most favorably on account of the cleanliness and good appearance of the roadway. R. D. Ferguson, of Lincoln, Neb., well known in brick circles throughout the country, is spending the winter in San Francisco. He will visit other parts of California. He has incidentally been taking a laboratory course with Smith, Emery & Company in technical clay work.

The Cedar Rapids Brick Company, of Cedar Rapids, Ia., is building seven new kilns.

The Connecticut Unit Brick & Tile Company, of Bridgeport, Conn., has certified that its factory has been moved to Riverside.

The plant of the Dows Brick & Tile Company, at Dows, Ia., was destroyed by fire February 13, causing a loss of \$25,000. J. A. Wilson & Son are the owners.

The East Bridgewater Brick Company, of East Bridgewater, Mass., has been incorporated, with capital of \$6,000, to manufacture brick. Incorporators: A. Emond, Kingston, Mass., and F. H. Cashman, Plymouth, Mass.

The Aetna Brick and Fireproofing Company of Cohoes, N. Y. has been incorporated with capital stock \$75,000. The incorporators are: William B. Leroy; Jean G. Whitney and Harry G. Calkins, all of Cohoes, N. Y.

The French Brick & Tile Company, of Trenton, N. J., has been incorporated to manufacture brick, tiles, etc. Capital stock, \$150,000. The incorporators are Hugh J. Bruce and A. R. French, of Fort-Richey building, Trenton, N. J.

The Southern Carolina Clay Company, 317 Market street, Camden, N. J., has been incorporated, with capital stock of \$100,000, to deal in clay products. Incorporators: J. F. Sutton, K. L. Frasier and T. H. Howland, all of 317 Market street, Camden.

Long Vitified Brick Company, North Judson, Ind. Capital stock, \$65,000. Operating brick and tile plant and selling enameled, vitrified and other brick. Incorporators, Glenn D. Peters, John W. Long, John Jacob Urschell, Orpheus C. Maurer and Bert H. Thompson.

The Homestead Brick Yards, Inc., Homestead, N. J., has been incorporated, with capital of \$125,000, to manufacture brick. Incorporators are: James E. Norris, Trenton, N. J.; William H. Cook, Lawrenceville, N. J., and Joseph R. Deacon, of Bordentown, N. J.

The Wood & Marble Substitute Company, Inc., Brooklyn, N. Y., has been incorporated to manufacture brick, deal in stone and lumber, etc. Capital, \$50,000. The incorporators are: A. M. Mitchell, Jacob Blank and Samuel N. Coombs, of 85 Bainbridge street, Brooklyn, N. Y.

Articles of incorporation of the Marshalltown Sewer Pipe & Tile Company, Marshalltown, Ia., were filed for record a few days ago. The capital stock authorized is \$150,000, divided into shares of \$100 each. The officers: President, Warren Overpack, Webster City; vice president, W. C. Horn, Muncie, Ind.; secretary, J. S. Culbert, Portland, Ind.; treasurer, F. J. Gary, Marshalltown, Ia. The directors, in addition to the officers, are: A. B. Wilder, Lyle, Minn.; P. J. Fish, Akron, O., and J. E. Norris, Denver, Col.

At a meeting of paving brick manufacturers in Pittsburgh, Pa., February 15th, twenty-five firms, representing 60 per cent of the industry's output, decided to make the Pittsburgh Paving Brick Manufacturers' Association a permanent organization. Uniform standards will be arranged in order to drive fakers from the industry. C. P. Mayer, of Bridgeville, was appointed chairman of the committee on constitution and by-laws and the new association will be known as the Eastern Paving Brick Manufacturers' Association.



### THE NATIONAL LIME MANUFACTURERS' ASSOCIATION.

Meets Semi-Annually.

#### OFFICERS.

President—Wm. E. Carson, Riverton, Va.  
First Vice-President—J. King McLanahan, Hollidaysburg, Pa.  
Second Vice-President—Lowell M. Palmer, Jr., New York, N. Y.  
Third Vice-President—Geo. E. Nicholson, Manistique, Mich.  
Secretary—Fred K. Irvine, Chicago, Ill.  
Treasurer—C. W. S. Cobb, St. Louis, Mo.  
Executive Committee—Wm. E. Carson, Chas. Warner, L. Hitchcock, W. M. Hunkins.

#### WILL ENLARGE LIME PLANT.

The Dutchess County Hydrate Co., Inc., has been incorporated under the laws of New York to take over the plant and property of the Dutchess County Lime Co., at Dover Plains, New York. The officers of the new corporation are Paul M. Pierson, Scarborough on the Hudson, N. Y., president; R. N. Soper, New York City, vice-president and general manager; H. C. Pierson, New York City, secretary and treasurer, and W. C. Smith, Dover Plains, N. Y., superintendent. Mr. Soper, the general manager, with offices at 111 Broadway, New York, is well known in the lime business as he was formerly connected with both the Ash Grove and the Tidewater Portland Cement Companies, both of whom have large lime plants.

It is the intention of the new company to enlarge the old plant to three times its present capacity and to build a large hydrating plant. Richard K. Meade, chemical, mechanical and industrial engineer, 202 N. Calvert street, Baltimore, Md., has been engaged to prepare plans and specifications for the new plant, which will be modern in every way and will take advantage of all recent improvements for product at a minimum cost. The kilns will be especially designed by Mr. Meade and the hydrating plant will be motor driven and strictly up-to-date in every way. A large storehouse equipped with conveyors will also be built.

Dutchess County lime has been on the market for a number of years and is well known in and around New York City for its excellent qualities and is a favorite lime for finishing. The limestone deposits owned by the company at Dover Plains are very extensive and the stone is high in magnesia and very pure.

Vatio Lime Company (Inc.), Richmond, Va., A. G. Rogers, president; J. M. Lancaster, treasurer; L. H. Drew, secretary — all of Richmond. Capital, maximum, \$50,000; minimum, \$5,000. Object, lime business.

It is reported that the Marblehead Lime Company, Chicago, Ill., will close its option on eighty acres of the Waterman farm, just west of Bloomington, Ind., and establish six lime kilns and a crushed stone plant. The total investment would exceed \$100,000 and seventy-five men would be employed. The company may also establish hydrating machinery for the purpose of screening lime into powdered form.

#### UNIVERSAL SPECIFICATIONS.

Lime was the first building material to be manufactured. With the first burning of lime the civilization of man began. It was first used, as it is now, mixed with sand for the purpose of imbedding stone, boulders or brick into a solid wall.

There has been little progress in the method of its manufacture or in its application through all the ages from the misty beginnings of history down to the present time, for lime mortars have consisted of lime putty mixed with sand and lime plaster mortars have consisted of lime putty mixed with sand and hair or other fibrous holder.

The proportions of the two principal materials have always varied slightly according to their local characteristics. One type of sand gives an all sufficient quality of mortar with one measure of lime, while another kind of sand calls for an entirely different measure of lime; and in all cases the particular treatment and development of the mixture must depend upon climatic conditions, to a certain extent.

It is peculiar that a material so intimately connected with the entire course of progress of civilization should be so utterly neglected in the literature of all the people who have made and used lime for the same essential purposes from the beginning to the present time. When we started Rock Products twelve years ago the entire literature in English print on the subject of lime could be carried in one hand without inconvenience, and the search for this literature was diligently made in every possible source of supply both in this country and in Europe. There is scarcely a passing week when we do not receive some inquiry concerning lime, which shows the abject vacancy of technical information on the subject of lime or its uses.

For instance, a request has come to hand that a formula be furnished for the mixture of a high-class lime mortar for exterior plastering on metal lath which shall be universally dependable in all parts of the United States. This request was accompanied by the complaint that several formulas had been offered from various parts of the country and that they differed to such an extent as to make one feel that none of them could be considered dependable. Now, as a matter of fact, every one of those formulas coming from different parts of this broad land might be the best obtainable lime mortar, each in its respective district with the local lime taken into consideration and the local sand in combination therewith taken into the calculation.

## SATIN SMOOTH AND SNOW WHITE



It is  
sold  
to only  
one dealer  
in each  
District

Fully  
guaranteed by a  
firm whose  
Lime was  
recognized

**The Standard**  
NEARLY SIXTY YEARS AGO  
"WHITEKOTE IS THE RIGHT COAT"



The attempt of the National Lime Manufacturers' Association to standardize lime or to make a standard of comparison would need to have a column of the standard specifications to show the mortar value for mason work and for plastering work, first comparing the limes to each other through the medium of a standard sand and then comparing the sand values as against each one of the typical limes so derived. This makes a complex standardization much harder to arrive at than any which have heretofore been attempted in the field of building materials.

Any standardization of lime which would be a mere comparison of their chemical analysis as arrived at by a separation of the basis and their proportions in various limes would have little or no value and no practical use, for one of the most important factors in the application of lime is the condition of the material and its tendency and behavior in the presence of water and the sand element. It is true that the technical men of the lime industry have only gone into the matter in a superficial way. Their knowledge is only of the crudest kind and in no way dependable for the practical operator. The mason and the plasterer with their trowel, and the mortar box "angel" with his hoe, have got more actual knowledge by the "feel" than all the deductions and conclusions that we have been able to arrive at so far with our technical research.

There is no good way to answer the inquiry with regard to the universally applicable formula for a lime mortar, although it is quite probable that many hundreds of our readers who are practical and experienced in the handling of one particular type of lime will feel that that would be the simplest thing in the world to answer; and for the sake of assembling comparison right along this line ROCK PRODUCTS wants to request that each and every one of our readers send the answer to the inquiry as taught him by his experience and practice, so that the compilation of the results may form a suggestion to bring forward such a workable formula as will be intelligent for the use of people who want to specify lime. Attend to this at once so that it will not get mislaid upon your desk and thereby fail of attention.

### PUSHING HYDRATED LIME.

By one of the Patriarchs.

"It's simply a question of education," said the manager of the selling end of a big lime and cement concern, speaking of hydrated lime. "Those who have tried it and know about it wouldn't have anything but hydrated lime, no matter how high the price was; while others, who haven't been shown and refuse to permit themselves to be shown, simply won't have it at all. I think they have some sort of idea that it must be stuff that has 'gone bad' on our hands, and that it is being palmed off as a superior article merely as a slick selling game."

This about expresses the attitude of a good many dealers and a still larger number of contractors and builders toward hydrated lime. This would indicate to one not familiar with the business that hydrated lime is an absolutely new thing. Some of the larger lime plants have been turning out hydrated lime as a regular part of their output for nearly ten years, and gradually introducing it on the market, until today it is well known among dealers and builders in all the big cities. In some of the smaller towns and cities, however, it is still regarded with suspicion and distrust; and while there is no particular fault that can be laid to its door, it seems, there is still a sort of subterranean belief that there is something wrong with it, that will eventually come out in the wash if the stuff is once used.

The exact contrary is the case, however. Its superior convenience in handling, and the immensely better results obtained, besides the immediate saving in labor effected, all operate so strongly in its favor that a single trial frequently makes a permanent convert of the dubious dealer or the backward builder.

The dealer, however, is usually the easier of the two, inasmuch as he keeps fairly abreast of the developments of his business by means of frequent contact with the manufacturers and their representatives, not to mention what ROCK PRODUCTS has done. He reads of new things long before they reach him. He talks of them, and rolls them over in his mind; and by the time he is tackled for an order, while he may not be ready to give in at once and take a trial shipment, it is not as if he had been asked to buy a carload lot of moonshine or some other intangible and unheard-of monstrosity.

"When we first began to handle hydrated lime, we had the proposition of getting the dealer to take it put right up to us. We solved it, after trying it out in different ways, by sending a few sacks along with every carload of lump lime ordered by

a dealer, at the same time writing him to just let it lie around, and watch it, and see how it was affected by the time the tag-end of an old shipment of lump lime had gone to the bad on him. Of course, the results were invariably very satisfactory. The only deterioration it suffers is in the absorption of carbonic acid from the air; but this is so very slow that it takes a long time—several months—for any real depreciation to result.

"As a matter of fact there is no particular damage done to ordinary lime when it slacks by absorbing water in damp weather. Of course the action is not uniform, but it is not entirely uniform when slacking is done on the job. The lime is just as good as it ever was, and the only thing in the world that renders it any less usable, or, rather, less salable, is that it is less easily handled, as the slacking process reduces the lime to a powdered form. But most of the dealers and contractors still insist that it's ruined if it has slacked a little; and so when you hand them a sack of hydrated lime and tell them that it has already been thoroughly slacked they hardly know what to make of it—unless, as I say, they have already tried it, in which case there is no necessity of explaining. They will take it without any argument whatever."

Ease of handling is a great point in its favor, whether it is the dealer who is receiving it to store in his warehouse, or the contractor to haul directly to the work he has on hand. The forty-pound sacks which are the usual package can be loaded and unloaded from the car much more rapidly than lump lime; and there is absolutely no loss in the handling of the sacks, whereas every handling of lump lime necessarily occasions some loss, in one way and another. The single point of its storing capabilities would be sufficient to turn the scales in its favor with the dealer, however, and a little effort expended in assisting the dealer to introduce the product in his town will frequently solve the problem for him without any difficulty whatever.

Just as a few bags thrown into a carload shipment to a dealer will convince him of their superiority from his point of view, so a small sample lot furnished free of charge to a builder, for demonstration purposes, will operate the same way with him, when he has a chance to prove by his own personal experience the saving in time and labor afforded him by the hydrated lime, where the several processes necessary to fit the lump lime for use in mortar or otherwise have already been applied by the mill, more thoroughly and efficiently than an unskilled laborer could ever do it.

A check on the time occupied in preparing a batch of putty for use with the two kinds of material will prove to be a very satisfactory way of convincing the contractor of the practical economy of the pre-slacked article. While the difference in cost is only about twenty-five cents a ton, the work of slacking alone will take a man something like half a day for the same quantity; and after that, even if the job could be thoroughly done in a short time, which is as a matter of fact impracticable, the whole lot has to be screened by hand, in order to eliminate the impurities which occur in the stone. By the time this is all done, the cost of the finished slacked lime is considerably greater than that of the hydrated lime delivered on the job ready for use; and at the same time, the material thus produced is far inferior to that handled at the mill. It is simply another question of the superiority of machinery and scientific methods over the crude makeshifts of unskilled and sometimes none too intelligent day labor. That any contractor would prefer the work of the latter to that of the former is hardly explicable, save by the ingrown dislike of changing an old process for a new. Such feeling as this keeps a good many men thinking up excuses for not using modern machinery, equipment and material long after their competitors have by their adoption and use pulled far ahead in the race for business and profits.

A single point worth mentioning on the quality side of the account in favor of hydrated lime is the thoroughness with which the process accomplishes slacking. Experts state that thirty days should be allowed for the slacking of lime by the ordinary method. While this may occasionally be done, by large contractors who make a practice of having their materials of all sorts ready for the job well in advance of the time of use, it is not the case with the average builder, especially those who handle small houses on contract. His slacking will probably be done on the job, and will, of course, not be done thoroughly. The result will be that the owner does not get a satisfactory job. The use of a few sacks of hydrated lime would cover such a job as this, and would be highly pleasing to everybody concerned.

"If the dealer has no stock, he can easily get a sample shipment from the nearest mill with his next lot of lump lime. And the best possible way of using this complimentary shipment would be to

pass it right along to some reliable, but behind-times contractor, for use on some small job, so that he can satisfy himself of the merits of the more modern material. The job will be better done, and the contractor will never more buy lump lime; which is the result the dealer and the mill should be working together to accomplish."

### AMERICAN ENGINEERS IN TOUR OF GERMANY.

To foster a broader commercial spirit between America and Germany, about 200 of the most prominent mechanical engineers of the United States will go to Europe this summer to attend the fifty-fourth annual meeting of the Verein deutscher Ingenieure in Leipzig and to inspect the educational and industrial establishments of Germany. The party will sail on June 10 on the Hamburg-American line steamship Victoria Luise, the largest and most superbly appointed cruising steamer afloat. Many friends of the engineers are also planning to sail on the steamer and will probably compose the entire passenger list. The official party will consist of 200 members of The American Society of Mechanical Engineers, accompanied by one hundred ladies.

The program will include many features of interest. On arriving in Hamburg on June 21, the great shipyards will be visited. The party will then proceed next day by special train to Leipzig. Here the king of Saxony will welcome the visitors and the Verein deutscher Ingenieure will tender an official reception at which the president of The American Society of Mechanical Engineers, Dr. W. F. M. Goss, dean of the College of Engineering of the University of Illinois, will make the principal address.

The party will leave on June 25 for a tour of industrial Germany, visiting Dresden, Berlin, Cologne, Düsseldorf, Frankfurt, Heidelberg and Munich, including a trip up the Rhine.

Independence day will be celebrated at Frankfurt under the auspices of the American embassy.

### THE INTERNATIONAL EXHIBITION.

The work of erecting the buildings for the International Building Exhibition, Leipzig, is progressing in a gratifying manner, and many of the palatial buildings and halls now under construction have proceeded so far that visitors will have no difficulty in realizing at a glance the far-reaching importance of this unique and interesting exposition. Many of the buildings cover a large area of ground, and among the buildings are the Industry Halls, Machinery Hall, Iron-Beton Hall, Banquet and Congress Hall, Hall for Building Hygiene, etc., and a prominent feature will be the so-called monument of iron, a huge building which will represent the powerful iron and steel industry.

The United States will be well represented at this exhibition. Large models will be shown of the giant bridges spanning the various rivers, and skyscraper buildings will be reproduced in the form of models, pictures, photographs and other illustrative material. There will further be exhibited a view of New York's magnificent harbor, and also a large number of models, designs and other suitable material which entered into the making of that metropolis' most prominent public and private buildings.

The lime business remains steady at Dallas, Texas, large quantities being used in conjunction with cement work. The Michael Lime Company, on the outskirts of the city, have a large plant and they, with dealers down town, are busy.

Landt Brothers, of Anniston, Ala., have been awarded the contract to build a large lime plant, consisting of four kilns, at Cartersville, Ga., for which place Fred and Paul Landt left with a force of workmen a few days ago.

The Ohio & Western Lime Company is constructing 12 new kilns at its plant at Marion, Ohio, 12 at Genoa and 12 at Ginsburg, Ohio. Peter Martin, of Huntington, Ind., is president of the company and has been in Gilsburg recently, looking over the operations.

The improvements at the Lowell M. Palmer lime plant, West York, Pa., have been completed and the two large modern kilns that were installed have been put in operation. With the modernizing and additional equipment, it is now one of the largest and most modern plants of its kind in the East.

The following officers were elected recently at the annual meeting of the Joint Lime Company, Glens Falls, N. Y.: President, T. S. Coolidge, vice president, F. W. Wait; treasurer, S. B. Goodman; secretary, A. N. C. Fowler. The directors are T. C. Coolidge, F. W. Wait, S. B. Goodman, J. Irving Fowler, B. B. Fowler and H. J. Russell.



### INCOMMENSURATE PROFITS.

The operators in gypsum and plaster are becoming restive with the holding on of the cold weather, and also with the valuations that prevailed during the latter part of last year and during the winter. The tonnage of plaster has grown year by year, and while the adaptability of this material for many uses has made great progress of recent years, it has not seemed to change the method of some of the manufacturers in marketing their goods. Prosperity seems to hang heavily on the gypsum operator who gets over ten cents per ton profit, and after a period of reasonable prices somebody gets hungry, suspicious, or careless, and whoop goes the price of gypsum products to the bottom of the sea—and that is where it is tarrying this minute.

If somebody would just get a hydraulic jack and raise the whole crowd to a basis of at least a twelve per cent profit, it certainly would help the whole industry. No manufacturing industry, however, should try to do business at a profit of less than twenty per cent, because contingent expense alone will eat up eight or ten per cent of it. If the big plants everywhere in the gypsum line are burdened with expenses which makes them operate at a loss or on a cost basis, this should be another factor to swing the pendulum towards a profit account; and yet with four of the largest materials in our industry being sold at cost, Uncle Sam would still retard the progress of the business by scaring everybody, and incidentally suing a few people for fear they might get a reasonable price for their manufactured goods.

### PLASTERING CONTRACTORS HOLD MEETING.

The Plastering Contractors' Association of Chicago held a meeting and smoker at their club rooms, 32 North Clark street, Saturday, February 15. W. P. Riley, president of the association, presided. A very interesting address was delivered by Oscar A. Reum, of the Zander-Reum Company. Eight new members were admitted, bringing the total membership up to sixty-five. This association, which is rapidly growing, is composed of the most progressive plastering contractors in the city. J. Goggin is secretary of the association.

The Rockford (Ill.) Plaster Company had an exhibit of Rock Wall plaster at the Made-in-Rockford Show.

The certificate of incorporation of the Giant Plaster Board Company, of Bridgeport, Conn., has been filed. The company starts business with its full capitalization of \$20,000. The incorporators are J. H. Crossley, Edward S. Keenton and Raymond W. Case.

Carl Leonhardt, of Los Angeles, Cal., plans to build a large plaster works near Las Vegas, Nev., having purchased from R. W. Martin and C. C. Ronnow the gypsum works near that place. The mill will have a capacity of 200 tons per day and will employ about eighty men. It is connected with the gypsum mine by a railroad about six miles long. The mill is to cost approximately \$100,000 and will include a short line of railroad.

Dallas, Tex., March 13.—Geo. Shank & Son, Sumpster building, who do a good deal of the plastering business in this section, reports the market very good, weather considered. They did the work last season on the Country Club and other buildings of consequence. They will do the plastering on the Dallas Hall of the Methodist University here. They use a good deal of U. S. gypsum in their work and other goods.

San Francisco, Cal., March 18.—The California Bestwall Company, which recently commenced the manufacture of plaster boards in Alameda, Cal., is preparing to increase its plant and will add more powerful machinery.

Carl Leonhardt, a prominent general contractor of Los Angeles, has purchased the Bishop gypsum property near Las Vegas, Nev., from R. W. Martin and C. C. Ronnow. Men have been put to work opening up the property and a mill will be built with a daily capacity of 200 tons of finished plaster.

### ARCHITECTS ENDORSE PROFIT-SHARING PLAN.

Profit-sharing by employers with their employees received a practical endorsement at a banquet held in the Hotel Walton, Philadelphia, Monday evening, February 17, 1913, at which time were gathered all the associates and employees of the New York and Philadelphia offices of the architectural and engineering firm of Ballinger & Perrot, numbering thirty-two in all, including their staff of architectural, civil and mechanical engineers, the heads of departments, building superintendents from local and distant work, draftsmen and office force.

Walter F. Ballinger, senior member of the firm, presided, and after the banquet had been served gave a brief address, explaining the profit-sharing plan which had been decided upon by the firm. In brief, this consisted of a plan of sharing a certain proportion of the profits of the business with their employees, who, by their energy and industry had helped to earn it. This division of the profits will be upon a two-fold basis; the first will consist of the division of a certain sum set aside from the profits in which all the employees will share equally, irrespective of their salaries; second, there will be a division of an additional amount based upon the proportion which each employee's salary bears to the total amount of salaries paid. Mr. Ballinger announced that the past year had been the most successful and involved the largest amount of business that the firm had ever handled, and stated that this was due, in a great measure, to the efficiency and co-operation of their employees, which it was their desire to recognize in a substantial manner. Emile G. Perrot then distributed checks to the several employees representing their proportion of the profits of the past year on the basis outlined.

Profit-sharing has been practiced by this firm in the past to the extent of sharing a certain portion of the net profits with the heads of their several departments, which has proved so satisfactory that the firm has decided to extend the plan to all of its employees, from the highest to the lowest, believing thereby to obtain an increased co-operation and efficiency throughout their entire force. No pretense is made by this firm that the profit-sharing plan is a species of philanthropy, it being their firm belief that fair treatment of the employees is of mutual benefit to employer and employee. This thought has also found expression in numerous industrial buildings designed by this firm in which lighting, sanitation and healthful conditions have been given foremost consideration.

During the past year Ballinger & Perrot have been engaged in the designing and construction of more than forty institutions and industrial plants throughout the country, ranging in value from \$3,000 to \$600,000, including a Model Workingmen's Village of over two hundred and fifty houses, which is now being erected near Chester, Pa.

The speech making concluded with remarks from the heads of the several departments and employees expressing appreciation of the profit-sharing plan and voicing the loyalty of the employees to the firm's interests. As the distribution taking place at this time was entirely at the initiative of the firm and had not previously been announced by them, the surprise and pleasure of the recipients was thereby increased. As far as known, this is the first application of profit-sharing on such a general scale that has been made in the architectural and engineering profession anywhere.

Musical numbers, rendered by individual employees, also general singing by all present, were interspersed throughout the evening, and heightened the general good feeling which characterized the occasion.

### ENGINEERING DIRECTORY FOR 1913.

A valuable compilation in its line is the Engineering Directory for 1913 published by the Crawford Publishing Co. It aims to be a complete directory of the mill, steam, mine and machinery supply industries in the United States. One series of lists gives the names of jobbers and dealers and the manufacturers' agents. There is an alphabetical list of manufacturers and also a classified list of the same. A cross index to manufactured articles greatly adds to the convenience of the work, which is a book of about 1,550 pages and of convenient size for a desk pigeon-hole.

The International Hoist Company, Antigo, Wis., a consolidation of the Pioneer Iron Works and International Hoist Company, manufacturers of hoists, cranes, engines, etc., has increased its capital stock from \$50,000 to \$150,000 to provide means for handling its increasing business. The company abandoned its former works last spring and established entirely new works on a larger site, but with the increased facilities is unable to cope with its orders.

### TRADE LITERATURE.

A beautiful booklet under the title "Educating Canada to the Uses of Canada Cement" has been issued by the Canada Cement Co., Ltd., Montreal, Canada. It contains a collection of the advertising and publicity matter which this progressive concern has circulated throughout that country along educational lines in the uses of cement.

The Bain Wagon Co., 119 Main street, Kenosha, Wis., is issuing some late literature descriptive of the Bain dump wagon, which is manufactured by that concern. Several illustrations are shown of the dump wagon in use in some of the large cities of the country and also a two-color illustration of the dump wagon, supplemented by an interesting description of its meritorious parts.

Bulletin No. 57, on the subject of "Sheave Wheels," has been issued by the Edgar Allen American Manganese Steel Co., of Chicago, Ill., and is now ready for distribution to the trade. It contains a full description of the wheels and is amply illustrated with halftone reproductions from photographs, together with diagrams, sectional drawings, etc., and also pattern lists are shown. The general sales office of the company is located in the McCormick building.

A beautiful specimen of the printers' art is to be found in the new catalog issued by the Chapman Engineering Co., Mt. Vernon, Ohio, descriptive of the "Chapman Rotary Gas Producer." The type contents is in red and black and the booklet is fully illustrated with half-tone reproductions of various installations which the company made; also of views of the gas producer and its parts. The catalog is printed on high-grade enameled paper with brown, black and red embossed covers.

One of the most comprehensive booklets, in point of valuable descriptive matter, illustrations and artistic makeup, is that being circulated by the Monolithic Silo & Construction Co., of Chicago, Ill. It contains practically all the information necessary to the building of concrete silos, illustrated in a clear and intelligent manner. All the points of construction are discussed at length and in addition there are many diagrams to make the matter more understandable. A resume of conditions with and without the use of the silo is contained in the booklet. The company manufactures steel silo forms for concrete silos, grain bins and tanks in connection with monolithic reinforced silos.

"Concreting in Cold Weather" is a timely subject among farmers and rural contractors, especially at this time when other work is largely stopped by inclement weather. The Universal Portland Cement Company is issuing a book bearing on this important subject, prepared by them with special reference to the needs of the farmers and the small town contractor. This little pamphlet will be sent free upon request to those who need and desire it. It outlines methods whereby concreting can be carried on throughout the winter months, making possible much new construction at a time when farm labor otherwise would be unproductive. Among the subjects treated in the book are: "Effect of Temperature Conditions, Precautions About Freezing, The Use of Salt, Heating Materials, Mass Work, Floors, and Cement Products and Cold Weather Hints." The pamphlet is extensively illustrated by reproductions from photographs of work actually under way.

"Concrete Builder," issued by the Chicago AA Portland Cement Company, of Chicago, is a magazine of prepossessing quality and picturesque beauty in its illustrated pages. The January issue—which is Vol. 1, No. 1, and consequently the maiden effort—is striking in the point of its contents and the exquisite platinum finish of its type and photographic illustrations. The subjects treated in the book—The Pergola, Its Mission; Pavement and Roadway Construction, etc.—have been produced by pens of experts and each topic is accompanied by suitable reproductions from photographs of the work in actual operation or the finished product. The pergola, the sun-dial, the concrete lawn seat, the pedestal and flower urn of concrete, the lighting standard of concrete, etc., are really works of great beauty and lend magnificence to the garden for which they are designed. In the booklet are also shown views of large warehouses in which concrete was the principal factor of construction. Some views are shown also of concrete water tanks and stairways, and a view of a church, all constructed with concrete.





NATIONAL ASSOCIATION OF SAND AND GRAVEL PRODUCERS.

Meets Annually.

#### OFFICERS.

F. W. Renwick, Chicago Gravel Co., 343 S. Dearborn St., Chicago, Ill. .... President  
H. H. Halliday, Halliday Sand Co., Cario, Ill. .... First Vice-President  
W. F. Bradley, Ohio & Michigan Sand & Gravel Co., Toledo, Ohio. .... Second Vice-President  
H. F. Curtis, Lyman Sand Co., Omaha, Neb. .... Third Vice-President  
Lee R. Witty, Wabash Sand & Gravel Co., Terre Haute, Ind. .... Fourth Vice-President  
J. J. Neary, Utica Fire Sand Co., Utica, Ill. .... Fifth Vice-President  
C. H. Brand, Atwood-Davis Sand Co., Chicago, Ill. .... Treasurer  
Chas. D. Warner, Chicago, Ill. .... Secretary

#### CHICAGO SAND AND GRAVEL NEWS.

Chicago, Ill., March 20.—There is much satisfaction taken by the producers of sand and gravel in the conditions of the trade this month. A general feeling of optimism prevails in their ranks. Much work is seen in sight which will require great quantities of sand and gravel as soon as the building season opens, which is expected to arrive within a few weeks. Indications point to a year of great activity in the sand and gravel industry and it seems to be generally believed that prices for this product will rule higher than last year and that present good conditions will continue, enabling producers of sand and gravel to sell their product at a reasonable margin of profit this year.

C. H. Brand, of the Atwood-Davis Sand Company, sees very fine prospects ahead for good business this year. He said, "The demand has been good, we have been shipping sand all winter. From all indications prices will be better than last year. Conditions are excellent and everything looks very promising. Every indication at the present time points to prices that will be stable, and if such proves to be the case it will be a very satisfactory condition to both dealer and consumer."

P. M. Lewis, of the American Sand & Gravel Company, spoke of the conditions in the trade as being excellent this year. He said, "Business at present is quiet; the season opens about the first of next month, and with the large quantity of work in sight the demand as well as prices will be better than during the last twelve months, and will keep producers of sand and gravel without question busy all season. In fact, the outlook in the trade is exceedingly promising in every way."

P. M. Richardson, president of the Richardson Sand Company, said, "Business naturally is quiet at present, it being between seasons. Conditions in the trade, however, are good and there is plenty of work in sight which will require large quantities of sand and gravel in this market. Prices are firm and indications point to a somewhat higher level than that of last year. We feel that this will be a good season of much activity, and consequently look forward to the future with much confidence."

C. H. Stebbins, of the Lake Shore Sand Company, spoke of the conditions in the trade in an optimistic vein; that business looked good and from all present indications there appeared to be lots of work in sight and that prices for sand and gravel will be better than last year. At present business is rather quiet, which is to be expected, as the season does not open until the first of April.

Geo. B. Hart, secretary of the Joliet Sand and Gravel Company, said, "We are well satisfied with the existing conditions in the sand and gravel trade. There is not a great deal of activity at the present time, being between seasons, but everything points to an exceedingly good demand for our product this year, and that prices will be stable and higher than they were during 1912. There is a great deal of work to be done this summer in our line and everything looks decidedly bright for the immediate future."

The Newman Silica Sand Company, Massillon, Ohio; capital stock, \$10,000; incorporators, William Fashbaugh and others.

#### LOUISVILLE SAND AND GRAVEL NOTES.

Louisville, Ky., March 17.—With business comparatively quiet, John M. Settle, of the Ohio River Sand Company, took a little vacation recently, running up to Chicago for the Auto Show. Mr. Settle was particularly impressed with the auto trucks exhibited. He is contemplating the purchase of a truck, therefore viewed the display with more than casual interest. William D. Stafford is the new sales manager with the Ohio River Sand Company, taking the place left vacant by the recent death of Curtis A. Stout, a veteran of the building trades. Mr. Stafford has heretofore been with the O'Neal Coal & Coke Company, having wide experience in the selling field with that corporation. He is doing effective work in his new role, and is rounding up a nice batch of contracts for later delivery.

While trade is far from being at its height, the E. T. Slider Company has continued to deliver sand at one or two jobs. The most important of these has been at Thirtieth and Grand avenue, where the Lock Joint Pipe Company is working on city sewers. This work will probably be maintained for the next month or two. The Slider Company, under the management of Capt. J. R. Mitchell, is bidding on the material for the National Theater, the contract for which was let to the Selden-Breck Construction Company. The company is doing a good deal of repair work, one of its diggers being put into shape in anticipation of a strong spring business.

The Union Sand & Gravel Company, of Cincinnati, has changed its name to the Union Stone & Material Company, according to a recent announcement. No further changes are probable, the same officers remaining in charge of the company's extensive business.

The Ideal Supplies Company, recently incorporated at Ludlow, Ky., has installed equipment with which to develop big sand deposits there. Elevating, screening and washing machinery has been purchased by the company, of which J. J. Weaver is president. The corporation is capitalized at \$60,000.

#### PITTSBURGH SAND MEN EXPECT BUSY SEASON

Pittsburgh, Pa., March 18, 1913.—All the river sand companies are arranging to do a big year's business. Boats have been rebuilt or repaired, docks have been put in good shape and every company in Pittsburgh is prepared to do more business than it did last year. In building in the immediate Pittsburgh district there has not been quite as much activity as sand officials looked for to date, but the large amount of public work projects and the costly improvements to be made by railroad and trolley lines will help out greatly with their spring trade.

The Ohio River Sand Company will make extensive improvements to its plants down the river this spring. It has leased land at Wayne and Sixth streets, Marietta, O., which will be turned into a sand and gravel yard and fitted up with modern equipment to include a large steel dearth and boom. The present bins and yards at Post and Poplar streets, Marietta, will also be improved.

The Pittsburgh White Sand Company has increased its capital from \$87,500 to \$100,000 in order to further increase its operations.

The Kilbuck Silica Sand Company, of Millersburg, Ohio, has been organized with a capital of \$150,000 and will have its main offices at Warren, Pa. The company has 82 acres of land underlaid with silica rock which is over 99 per cent pure silica and is equal to any in the United States. The rock is from 60 to 100 feet thick. Plans are being made for a large plant.

The Marietta Sand Company has increased its capital from \$25,000 to \$50,000 and expects to largely add to its business this year.

The Rodgers Sand Company and J. K. Davison & Bro. each had on exhibition at the Exposition Automobile Show last week a very fine Pierce-Arrow motor truck of three tons capacity, which they use in their deliveries of sand and gravel. McCrady Brothers Company, a leading builders' supply firm of Braddock, Pa., also had its big Pierce-Arrow on exhibition at the exposition.

The Crystal Sand Company, of San Antonio, Tex., is installing machinery to dredge the sand from the Atascosa river near Pleasanton, Tex. The sand is to be used in making concrete.

D. P. Plummer Co., Evanston, N. Y.; dealing in sand and gravel; capital, \$1,000; incorporators, Geo. H. Bradshaw, Edward Graff, Wm. E. Rafferty.

#### SAN FRANCISCO SAND AND GRAVEL NEWS.

San Francisco, Cal., March 18.—The Grant Gravel Company, of this city, one of the oldest gravel firms in the state, now operates a very large plant at Pleasanton, Cal., getting out all grades of washed gravel for road work, roofing and concrete work, and reports an unusually heavy business this spring. It has several large contracts for state highway work and is shipping road material to San Mateo county and to several points in the San Joaquin valley, this material being found even more satisfactory than crushed rock for road work. The company is also marketing a natural mix of sand and gravel for concrete work, which is in strong demand in all the Bay towns.

The Union Sand & Material Company has been incorporated at Los Angeles with a capital stock of \$1,000,000 by M. B. Winner, C. M. Northrup, M. J. Henley, F. C. Northrup and H. G. Henley.

Two sand plants are now operating at Marysville, Cal., taking sand from the Yuba river with steam shovels, and shipments from that point have recently averaged five cars daily.

The Western Gravel Company has been organized at Eugene, Ore., C. H. Kain being one of those interested. A gravel bar has been secured near that town and machinery will soon be secured.

The Putnam Gravel Company has been incorporated at Portland, Ore., with a capital of \$5,000, by L. P. Putnam, M. A. Andrews and G. E. Hamaker.

#### ILLINOIS SAND AND GRAVEL.

Springfield, Ill., March 20.—The Virginia Timber Company, Peirick building, Springfield, has added another tract to its extensive sand and gravel holdings. The Cummings estate near Pekin has been purchased for \$13,000, and the big supply of gravel will be used at once.

The D. P. Plummer Company, of Evanston, has been incorporated with a capital stock of \$1,000, to deal generally in sand and gravel. The incorporators are, William E. Rafferty, George H. Bradshaw and Edward Graff.

W. H. Lafever probably will open a gravel pit on his farm near Lexington.

The Illinois Railroad & Warehouse Commission has issued a circular to town clerks and road commissioners throughout the state asking them to buy their crushed stone, gravel and sand earlier in the season, so that the coal cars used for shipment will be available when the coal rush comes. The commission suggests that the shipments be made between April 1, and October 1.

Residents of Grandview township, Edgar county, have taken the preliminary steps to build fourteen miles of hard roads. The plans include the use of more than 1,000 carloads of gravel.

#### MAY PASS ORDINANCE AFFECTING SAND AND GRAVEL SALES.

Detroit, Mich., March 18.—The Superior Sand & Gravel Company a few days ago consummated a deal for the purchase of twenty acres of land at the foot of Lyncaste avenue, the consideration being about \$50,000. The land extends out to the channel bank of the Detroit river and about sixteen acres of the tract are submerged. The width of the tract along the river is approximately 400 feet. The company will fill in part of the submerged portion of the tract and erect piers, dredging a slip to facilitate the handling of vessels. Officers of the Superior Sand & Gravel Company are: President, Andrew Green; vice-president, E. H. Bingham; secretary and treasurer, R. E. Clapp; sales manager, J. D. Kennedy.

The Detroit common council is considering an ordinance regulating the sale of sand and gravel. It is provided that every person, firm or corporation engaged in the sale or delivery of sand and gravel within the limits of the city shall deliver with each load a certificate showing the true cubic measurement of the material. The name of the driver making the delivery and the time of delivery must be given. The wagon used must be marked so that its true cubic capacity is in plain view. The sealer of weights and measures is empowered to inspect and test the cubic measurements of sand or gravel at any time called upon to do so, or of his own accord. The ordinance provides that any person who shall deliver or attempt to deliver sand or gravel of less measurement than purported to be delivered according to the certificate shall be punished with a fine not to exceed \$100, or the court may imprison the offender until such time as the fine and costs are paid, providing that the term of imprisonment shall not be more than six months. The ordinance has been referred to a committee and a public hearing on it will probably be given.

The Rochester Sand & Brick Company has filed articles of incorporation. The capital stock is \$50,000. The stockholders are Jacob H. Schlauchter, 950 shares; William F. Malow, 1,850 shares; Gustave Haase, 200 shares.

The C. H. Little Company has opened a new sand, gravel and plaster yard at Holden road and the Michigan Central railroad.

The Dresden Sand Company has changed the firm name to the Dresden Brick Company.

#### LOUISVILLE SAND AND GRAVEL NEWS.

Louisville, Ky., March 18.—The E. T. Slider Company has been a bit slow in getting into action because of repairs on its digger. This has been remodeled and will be put into commission in the next ten days. The company has secured contracts of minor importance and expects others of more value in the near future. Capt. J. R. Mitchell, manager of the company, is entirely satisfied with the outlook.

#### WHAT IS TORPEDO SAND?

C. W. Boynton, engineer in charge, Universal Portland Cement Co., Chicago, explains the proper application of the term as follows:

"The use of the term 'Torpedo Sand' in referring to the 'fine' aggregate for concrete, is not infrequent in and around Chicago, but is seldom referred to or understood in other communities.

"When used, the term 'Torpedo Sand' generally means a good, clean, hard, well-graded concrete sand, with the larger sizes predominating, as opposed to a fine or 'drift' sand, or a poorly graded sand.

"The term is really an arbitrary or commercial name used by sand and gravel dealers and concrete contractors in Chicago and the immediate vicinity for a good concrete sand.

"Authentic information on how the term originated has not been found. It is commonly believed, however, to have sprung from the use of this sand in manufacturing 'Fourth of July' torpedoes. This explanation is plausible, as both the manufacturing of the torpedoes and the supply of sand were likely local to Chicago.

"There is good reason to believe that the use of the term 'Torpedo' in referring to a good concrete sand should be discouraged. It is a trade or commercial term local to Chicago, with small likelihood of becoming general, and its use would continue to confuse the majority, as is true of all provincialisms."

#### MODERN METHOD OF UNLOADING SAND AND GRAVEL.

The illustrations herewith show the new electrically operated bridge tramway designed by the Dodge department of the Link-Belt Company, of Philadelphia and Chicago, for the Vigo Washed Sand & Gravel Co., Terre Haute, Ind., for unloading sand and gravel from barges and delivering to storage bin. The following will give some idea as to the size and capacity of this equipment:

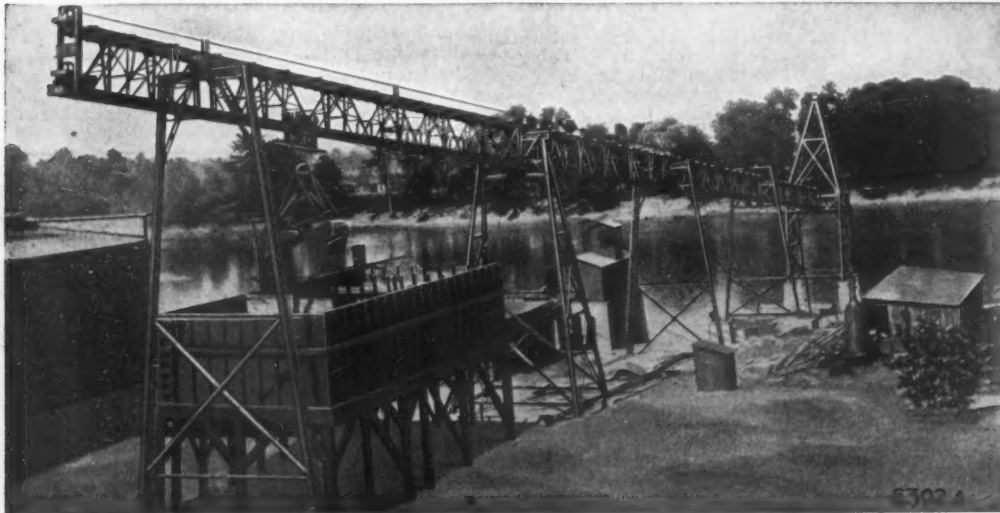
Length of bridge.....	365 ft
Capacity of grab bucket.....	1½ yards
Hoisting speed of bucket.....	125 ft. per minute
Trolley speed of bucket.....	1,000 ft. per minute

This is one of the most efficient machines ever devised for this work.

The Glenwood Sand & Gravel Company, of Glenwood, L. I., Nassau county, New York, has been incorporated to deal in sand and gravel, with capital stock of \$74,000. The incorporators are William A. Cooper, Warren J. Eldredge and Thomas G. Dooley, all of 64 William street, New York City.

The Henry Steers Sand & Gravel Company, Inc., has been incorporated to deal in sand, gravel, trap rock, marble, lime, etc. The incorporators are: Henry Steers, Greenwich, Conn.; James R. Steers, Portchester, N. Y., and Harry R. Wheeler, Hotel Bossert, Brooklyn, N. Y.

The Illinois Sand and Gravel Company, of Petersburg, Ill., has been incorporated, with a capital stock of \$10,000. The incorporators are L. H. Yourtee, J. H. Block and W. C. Roberts.



TRAMWAY OF VIGO WASHED SAND & GRAVEL CO., TERRE HAUTE, IND.

At the recent annual meeting of the National Sand & Gravel Producers' Association held in Chicago, among the various important subjects of general interest which were considered was the standardization of sizes of sand and gravel and classification in freight rates for sand and gravel shipments. Active steps were taken in behalf of both these questions which will undoubtedly come up at the next meeting and definite action on the former will be taken, the latter to come under the attention of the Interstate Commerce Commission. The various methods of classification for standard sizes were as follows:

- No. 1. Fine Sand, passing ¼-inch perforation.
- No. 2. Torpedo Sand, passing ¾-inch perforation.
- No. 3. Roofing Gravel, passing ¾-inch perforation.
- No. 4. Fine Gravel, passing 1-inch perforation.
- No. 5. Concrete Stone, passing 1¼-inch perforation.
- No. 6. Coarse Concrete Stones, passing 1½-inch perforation.
- No. 7. Road Ballast, rejected by 1½-inch screen after being crushed to that size.

Little Rock, Ark., March 19.—The Southern Sand and Material Company, of this city and Pine Bluff, Ark., headed by Mord Roberts, is making extensive improvements at the Little Rock plant along the Arkansas river. Derricks, tracks and chutes have been placed at an expense of several thousand dollars. A new outfit has also been shipped to Pine Bluff, Ark. Mr. Roberts states that trade was light in December and January, owing to conditions. Their washed sand is pumped twice in being handled to and from boat. It comes right out of the bed of the river and is of fine quality. For unloading from the bins, the company has a convenient arrangement. They have the contract to supply several railroads and have their own boat and barge facilities.

F. R. Euper, of the Euper Sand Company, of Fort Smith, Ark., has a sand business at that point in the western part of the state. He operates a boat and is very busy at this time.

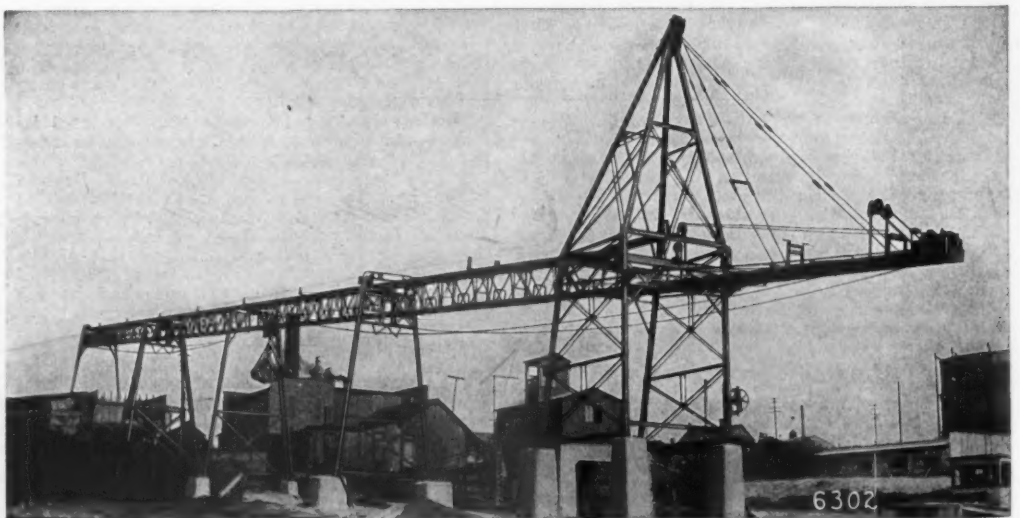
A gravel plant costing about \$10,000 will be in operation near San Diego, Cal., in the near future. The new pit and plant is located about 14 miles north of that city on the Santa Fe tracks and is owned by the Silven Gravel Company. The improvements include a set of bunkers having a capacity of 12 carloads and a complete rock crushing plant. The sand and rock is lifted by a continuous bucket elevator and is sifted through revolving screens to various bins in the bunkers. J. B. Stibolt is president of the company, C. A. Hanssen is vice president and John Brown is secretary. A similar plant was recently erected in this vicinity by Brown, Sumption & Barnes in the Otay Valley, where a large gravel deposit was discovered a short time ago.

The Nugent Sand Company took up operations a month ago and is working steadily getting sand and gravel out of the Ohio river. Most of the current business is of a wholesale nature, contractors calling at the plant for their supplies.

Andrew Hoertz, a well-known sand and gravel man of this city, has purchased an automobile for pleasure purposes, and is contemplating the use of auto trucks in delivery work.

The Fisher Sand & Gravel Company has been incorporated in Janesville, Wis., with a capital stock of \$30,000 by Grant W. Fisher, David H. Davies and George G. Brown. Officers have been elected as follows: President, Grant U. Fisher; vice-president, D. B. Clark; secretary, George Brew, Milwaukee. The company is planning on opening several new gravel pits and has already decided on a new plot of forty acres.

The steam tug Arctic, being built for the Pioneer Sand & Gravel Co., Seattle, Wash., will be ready for launching in about thirty days. The arch will be 125 feet long, 24½ feet beam and will have a depth of 11 feet. It will cost about \$35,000.



TRAMWAY OF VIGO WASHED SAND & GRAVEL CO., TERRE HAUTE, IND.



NEW YORK SAND AND GRAVEL SITUATION.

New York, March 18.—The local sand and gravel miners are getting ready for the spring demand, which promises to be of large proportions. The subways will begin soon to consume large quantities of these materials, and many dealers doubt if they will be able to supply the demand for gravel. Prices are strong and show an upward tendency. Sand is quoted at the advanced figure, 50 cents, which was put in operation last month. Sand and gravel men look for a big year, and from present indications their expectations are likely to be realized. Paving of streets has begun during the past week and all of them are being laid with a concrete foundation. Gravel and broken stone are used in this work.

At the offices of the Phoenix Sand & Gravel Company it was reported that business was fairly good at the moment but that they will have all the business they can handle within the next month. Deliveries have been going on steadily during the greater part of the winter for the subway and other construction work. Prices are firm and an advance in gravel is generally expected.

Certificates of dissolution were filed by the Dallas Gravel Company, Dallas, Texas, recently.

D. N. Thomas Sand and Gravel Company, Williamsport, Pa., has been incorporated for \$15,000.

The Glacial Sand and Gravel Company, Zanesville, Ohio, \$10,000; F. M. Ransbottom, M. L. Underner, Wesley Dutro.

The Union Sand and Gravel Company, Cincinnati, O., has changed the style of its name to The Union Stone and Material Company.

The Illinois Sand & Gravel Co., of Petersburg, Ill., has been incorporated with a capital stock of \$10,000. L. H. Yourtee, J. H. Black and W. C. Roberts are the incorporators.

The Deeter-Wayman Gravel Company, Dayton, O., \$25,000 capital stock, was incorporated recently by Elmer F. Deeter, I. M. Deeter, Charles H. Wayman, A. R. Wayman and J. R. Wortman.

The North-Western Moulding Sand Company of Beloit, Wis., capitalization of \$75,000, has been incorporated. H. W. Adams, William S. Perrigo and Charles H. Show are the incorporators.

Contractors' Sand & Gravel Company, Baton Rouge, La., T. P. Singletary, president, has been organized and will develop sand and gravel deposits; acreage not determined; opens bids March 1 for machinery.

Ingram & Heber, Newport, Ind., have been awarded contract to build a gravel road in Helt township, for \$3,999, and Gester & Gester will build a gravel road in Eugene township, for \$1,500.

The Buckeye Sand and Gravel Company, Cincinnati, O., has been incorporated with a capital of \$20,000, by Edward Meier, August Silk, Sr., and August Silk, Jr. A location for the company has not been determined upon.

The Indiana Gravel Company of Attica, Ind., is in the hands of the receiver, one of the owners, L. A. Hippach, of Chicago, having filed a petition in the circuit court of Warren county at Williamsport. William Woodhall was appointed receiver.

The capital stock of the Mississippi Sand Company, St. Louis, Mo., has been increased from \$30,000 to \$75,000 and the company will erect big storage bins for sand on the river bank above the city. The sand will be sucked from the bed of the river and carried into the bins, where it will be stored.

The Hoosier Slide Sand Company, La Porte, Ind., has a report which will be filed with the secretary of state and County Recorder Vader in which they have increased their capital from \$10,000 to \$20,000, having one hundred shares each with a par value of \$100. This increase in capital has been made in order that the company might raise money and expand their business.

According to recent reports, the new combination of sand and gravel digging interests, which has its headquarters in Baltimore, Md., and which recently absorbed the Potomac Sand and Gravel Company and the Washington Stone Company, is planning a combine that will include all concerns engaged in sand and gravel digging and stone handling on Chesapeake Bay in the vicinity of Baltimore and the Potomac river.

IN AID OF GOOD ROADS.

Several hundred delegates, representatives of forty states, attended the fifth international good roads congress which was held at Hotel LaSalle a few days ago. The congress was held under the auspices of the International Good Roads and Automobile Association, the National Good Roads Association and the Illinois State Good Roads Association.

There was a banquet at Hotel LaSalle in the evening, when addresses were made by representatives from many states and from abroad, in part as follows: C. Gordon Reel, head of the New York state highway commission; Warden Thomas J. Tynan, of the Colorado penitentiary; Charles Henrotin, representing several foreign consulates; A. A. Alexander, representing the Brazilian consulate; Dr. Edmund J. James, president of the University of Illinois; E. J. Watson, head of the South Carolina highway commission, and Mrs. George Bass.

Mr. Reel told of the way he secured the \$50,000,000 recently appropriated by his state for highways, and suggested that Illinois do the same.

Warden Tynan told of his success in using convict labor on road building.

One of the projects that will be urged by the congress is the Lincoln memorial highway, connecting Chicago, Springfield and St. Louis.

The National Good Roads Association has held more than 1,000 good roads conventions in every state in the Union, and has organized scores of state and county good roads associations.

There is a bill before the Washington and Oregon legislatures asking for appropriations to construct public highways from Vancouver, B. C., through the states of Washington and Oregon to California. The California legislature last winter passed a bill appropriating \$20,000,000 for public highways through that state.

Nashville, Tenn., March 12.—Hon. C. C. Gilbert, representative in the legislature from this county, has introduced a bill that promises to be of sufficient merit to be passed. It is to create a state highway department, establish a state highway commission and create the office of state highway engineer. His salary is not to exceed \$3,600. There are to be three members of the commission, who are to receive not more than \$10 per day for actual service, limited to 100 days per year. The act provides for the establishment of a system of main or trunk roads to be kept by the state. The license fees of motor vehicles are to be applied to the maintenance of the department. If this bill passes it will mean a definite and assured completion on a good scale of the Memphis to Bristol highway and a system of practical development in the different counties on roads and bridge questions that will revolutionize old conditions.

The H. W. Johns-Manville Co., of New York, has purchased the old farm of the late George M. Pullman at Riverdale, south of Chicago, Ill., comprising 110 acres within the bend of the Calumet river lying north and east of the Pan Handle railroad, and will improve it with a plant to cost around \$5,000,000. It will furnish employment for between 5,000 and 6,000 persons and will be one of the largest of its several asbestos plants. The land is on the west side of the Illinois Central railroad; other transportation in the neighborhood includes the B. & O. and the Indiana Harbor railroads. The H. W. Johns-Manville Company has large plants in various parts of the country but it is understood that it will consolidate its manufacturing departments at this place.

The Cross Engineering Co., Carbondale, Pa., has issued Circular No. 1 to the trade, descriptive of that company's "Symplex" Rivetless Chain. The booklet contains illustrations showing the detail of this chain and other general information, together with price list.

A TRAILER FOR AUTOMOBILE TRUCKS.

At a series of tests recently made at Troy, Ohio, with the new "Troy" auto truck trailers, some interesting facts were established with respect to the equipment manufactured by the Troy Wagon Works Company, of Troy, Ohio. This company will have on the market in a very short time a specially designed patented trailer for automobile trucks, which is probably the first patented trailer built for this purpose.

The time lost in loading and unloading the average heavy duty truck is so great that it makes the truck decidedly unprofitable on short hauls.

The trailers which were tested at Troy are shown in the accompanying cut. They are reversible, with pivoted axle construction. They will follow the truck at any speed around any corner or into any opening.

With a plant of three trailers, the truck loses no time in loading and unloading. While the truck is hauling one trailer one is left behind to be loaded, and the third trailer is being unloaded at the same time. The truck and one trailer are in motion constantly.

The following table of costs per ton per mile were arrived at:

Ton-Mile Costs.					
Distance of Load- ed Haul in Miles.	One Team, One Wagon, Cost per Ton-Mile.	Two Teams, Two Wagons, Cost per Ton-Mile.	Motor Alone, Cost per Ton-Mile.	Motor and Three Trailers, Cost per Ton-Mile.	Motor and Six Trailers, Cost per Ton-Mile.
1/2.....	0.444	0.258	0.480	0.210	0.258
1.....	0.319	0.222	0.319	0.154	0.167
2.....	0.256	0.205	0.240	0.143	0.118
4.....	0.221	0.196	0.200	0.137	0.106
6.....	0.214	0.194	0.186	0.135	0.104
8.....	0.209	0.192	0.179	0.134	0.103
10.....	....	....	0.176	0.134	0.103

CHANGE IN TAYLOR-WHARTON REPRESENTATIVES.

The Taylor-Wharton Iron & Steel Company announce that H. A. Johann and Martin O'Shaughnessy, who have been in charge of the Chicago and middle-West territory, having resigned, effective March 31st to engage in other business, the Chicago office of the Taylor-Wharton Iron & Steel Company will be in charge of George R. Lyman and J. R. Bolgiano, with Guy H. Bergen, representing the company particularly in the Massabe Range district.

The Cyclone Drill Company, Orrville, Ohio, and with offices in Chicago and New York City, recently issued a four-page circular to the trade illustrating and describing the various blast hole machines manufactured by that concern for contractors, railroad construction work, submarine drilling, etc. As stated, the folder contains much descriptive matter and in addition is illustrated with many views of their drills in actual operation. A list of contractors who have used the Cyclone drills is also contained. The Cyclone Drill Company has specialized on the subject of drills and manufacture the same for practically all purposes.

"Expanded Metal Construction" for March, which is issued by the Northwestern Expanded Metal Co., 37 W. Van Buren street, Chicago, has reached the desk of the editor and contains much valuable information in regard to the various uses of concrete in connection with expanded metal. In the booklet are shown halftone reproductions of Bishop's mausoleum, Chicago, with interior views; reinforced concrete guard rails, stucco houses and business blocks into which the product manufactured by the Northwestern Company was a large factor in their construction.



"TROY" AUTO TRUCK TRAILER.

**SAND-LIME** † † †  
† † † † † † **BRICK** †

**SAND-LIME BRICK ASSOCIATION**  
Meets Annually  
**OFFICERS.**

**OFFICERS.**  
S. O. Goho, Harrisburg, Pa.....President  
F. B. Allen, Toronto, Ontario.....Vice-President  
W. E. Plummer, Jr., Buffalo, N. Y.....Secretary  
J. L. Jackson, Saginaw, Mich.....Treasurer

**EXECUTIVE COMMITTEE.**

G. Silvester, Calgary, Alta. ....	Canadian Division
E. G. Chapman, Minneapolis, Minn. ....	West'n Division
W. M. Burchfield, Rochester, N. Y. ....	Eastern Division
H. H. Tift, Tifton, Ga. ....	Southern Division
L. W. Penfield, Willoughby, O. ....	Central Division

## THE PRESENT CONDITION OF THE SAND- LIME BRICK INDUSTRY.\*

Some months ago the United States Geological Survey issued a bulletin on "The Production of Sand-Lime Brick in 1911," showing a decrease in the number of plants operating and a decrease in the total value of the brick produced; in an issue of a clay trade journal shortly thereafter they advised their readers that sand-lime brick had died a natural death, and then, after writing the obituary, proceeded to kick the corpse around.

Our secretary, who has been accused of many misdeeds, but who had never been accused of being a dead one, resented the slander and then proceeded to prod some life into everyone he could reach, and, among others I replied that we were buried, with orders, it was decreed that I should prepare a paper with a view to determining the actual conditions as I saw them.

The Government report also stated that undoubtedly a number of reporting plants had ceased to operate, also that the total value of the brick made was less than in 1910; several weeks later the same department issued a bulletin on clay products, showing in the same year burned clay products had suffered a loss in value of \$7,000,000, and the greatest loss was suffered by common brick; therefore, in comparison, our showing does not look so bad.

We who attended the last convention know that most of the members present reported business as better than in 1910, though the trade conditions in some sections were such that few bricks of any kind were in demand, and the report showing the great loss by the clay products industries indicates that building was considerably below normal.

They would classify the sand-lime plants into the active and the inactive factories, for quite a number of factories we know are operating continuously and progressing from year to year and the bulk of the brick reported made are turned out by these active factories, the other group have run sporadically, run for a few years and then closed down, and the ownership is again with inadequate capital or more often poor management, and in a few months would be out of the producing class again; now these latter plants were bound to wind up their existence and the first let-up in building operation was sure to see them drop out; others were destined by the Government to be closed down, and the whole industry, and many of them never had any excuse for existing.

We all know that a few years ago, when the promotion fever for sand-lime plants was at its height, every man who owned or could get an option on a sand bank

saw wealth chasing after him if he could only get a sand-lime plant started on his hill, and it did not make any difference as to whether the other essentials were there, such as market, shipping facilities or topographical management, it was possible to get together the cash the plant was started. You could lose for did not the promoters agree to make a hundred thousand brick-beta-turning-over-the-plant etc.

There have been to my knowledge in my state, Ohio, five such factories before we started business, and we were given ample warning that we could not succeed where they failed.

One of these factories was located in the Hocking Valley, where the big face brick plants are located, having millions of culis from their clay plants to dispose of, and expected to compete with them, with the nearest city about sixty miles away and a freight rate that ate them up; another was located in Columbus and paid \$1.00 a ton for sand and expected to compete with common brick selling at \$6.50 per thousand, delivered at the building.

Another plant, located in Cincinnati, had a process all their own when originally installed, and in addition to the sand and the lime added some refuse from a fertilizer factory nearby, and had a world beater.

Now, we are cited as a decaying industry, because these plants that never had any reasonable show to become successful businesses have gone out of commission.

some dry, porous, and sandy, and the same experience and their wrecks were scattered from one end of the country to the other, and in their case it was most often due to the fact that their clay, while apparently making wonderful brick in the sample lots, was very inferior in the actual product, and the main cause the clay was not even fit for common brick; and here I want to say that most of the sand-lime plants that were unsuccessful commercially did make fairly satisfactory brick while in operation, so that while from an investor's standpoint they are warning posts, the consumers are not deceived, and they are not to be given little satisfaction from this cause; for in our own experience we are selling customers of three of the



former plants located in Ohio and we filled several orders in Indianapolis where sand-lime brick had been specified after the plant in that city had ceased operations.

From the reports received by Mr. Plummer, with the active factories, and, by the way, they are the association factories in the main, the business was never so good before and we are on a firmer basis than at any time in the past.

Early in the fall I went to Michigan City, Ind., and there saw the North Indiana Brick Company's plant and



C. H. RUGG & COMPANY'S PLANING MILL, ROCHESTER, N. Y.



SEN SEN BUILDING, ROCHESTER, N. Y. (750,000).

from there I went to Jackson and Lansing plants, the former was in operation and the latter about ready to begin operations; these two factories had both quit business under their former organizations and had been bought up and remodelled by the Erie Company, the latter location was the Niagara Brick Company interests, of which Mr. Jackson is the head, and there is no question but that both of them will be successful. Mr. Allan, of the Toronto Brick Company, took over an unsuccessful plant at Washington, D. C., and took it to the Erie Company yesterday and he turned out successful factories of today, and more of these old failures will be reclaimed.

From all the time I learn, the factories that have reported are almost without exception having the busiest year in their history. The factories in Michigan were all busy when I visited them, our own factory has been running at capacity and selling all we made and we have all the business we can handle for months ahead, and the Canadian plants will outstrip the States at their present rate of progress.

The clay journal mentioned before stated that a sand-lime plant could not exist where there was clay brick competition; look at the Michigan City plants in brick country, and at the Chicago plant, the greatest brick producing market in the United States, the two Detroit plants with strong clay brick competition; in our own city where we started they were operating seven clay brick plants, there are now four clay brick plants to compete with.

now turn clay brick plants to compete with the soft-burned brick which is sold through architects' specification, they being specified outright or in many cases either hard-burned clay brick or sand-lime brick; and in this connection I want to cite one order on our books. It is for about two hundred thousand bricks and is from one of our clay brick manufacturer competitors, who is also a brick contractor, and who bought soft brick on a awarded contract because he figured it was cheaper than to skin his kilns to set out the all hard-burned brick, which he knew would be insisted on in this job.

The Sand-Line Brick Association has done more to make the business successful, the quality of the brick better, and has saved more factories from going on the rocks than any other factor, and you men who have problems that seem impossible to solve, will do well to attend the meetings and ask questions, and when you find some one who has valuable information bearing on your trouble, buttonhole him and get all the experience you can from him, for we brick manufacturers are here to get and to give all the information we can and have no axes to grind.

The benefits, and I mean by this direct ones, that our company has received through the association cannot be figured in dollars and cents, for had it not been for the information we were in position to get from the association through Mr. Plummer, we could not operate our plant today.

having run successfully for a year or more that seemed likely to swamp us, but Mr. Plummer had been up against the same thing and had solved the problem, and he got the Big Idea that put him on the right track through something he had heard at the Washington convention, and many other plants have followed; then after Mr. Plummer had put us next to the wet pan, he told some of us our lime hydration systems were clumsy and wasteful, and that the bin or storage system of pre-hydration was better.

Now these things that have meant so much to us in a financial way have cost us nothing but the asking, and the slight outlay for dues and trips to the convention and had it not been for the association, all the money we could have raised would not have brought us the information; and then, for the last couple of years we have had our good friend Emley to diagnose our ailments and help us and show us the way to cure ourselves.

The enthusiasm we all take back with us after the meetings is worth more than we can measure and compensates for many of the knocks and bruises we get from day to day, and that pays, too, in dollars and cents because we jump in and fight many battles that we would otherwise be inclined to shirk.

First: The sand-lime brick business is on a firmer foundation and is more successful than at any time since it was introduced in America, and,

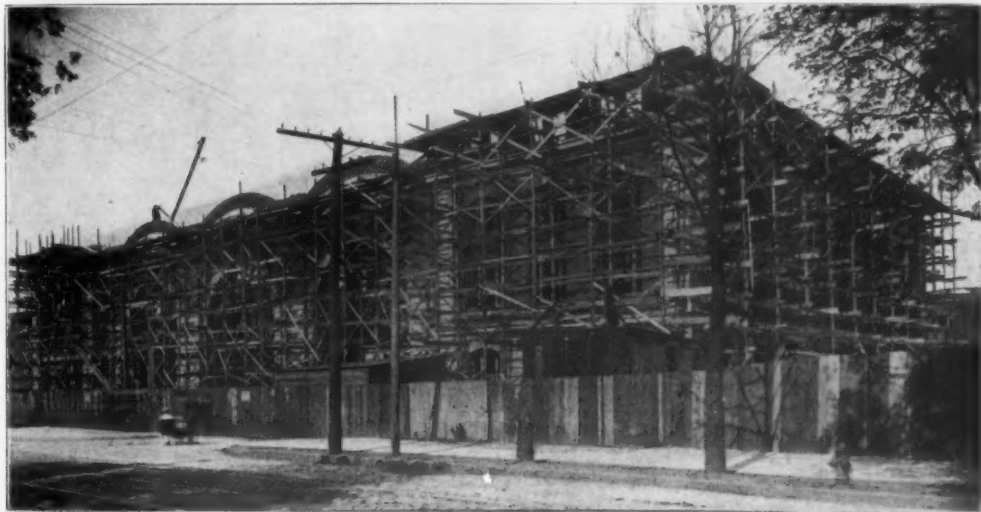
Second: To the American Sand-Lime Brick Manufacturers' Association is due the lion's share of the credit for the marked improvement in our present conditions.

The first essential in going into the sand-lime brick

The first essential in going into the sand-lime brick business is not machinery or sand or lime; it is the knowledge that a man must have, and that he may gain by going into this association and finding out what other manufacturers have experienced, in order to know whether he wants to go into the business at all. I thank you.

\*Paper read at the annual convention of the Sand-Lime Brick Association, held at Toronto, December 3 and 4, 1912, by W. H. Crume, of the Crume Brick Co., Dayton, Ohio. Mr. Crume has been actively engaged in the manufacture of sand-lime brick for the past four years and has developed a splendid business at his Dayton factory, his brick being in great demand and for the past year the factory has been running full time, with orders in excess of their capacity and every evidence indicated that they will be obliged to double their capacity to fill orders. Mr. Crume's wide knowledge of the industry qualifies him to speak with authority, as shown in the accompanying paper.





NEW YORK CENTRAL PASSENGER STATION, ROCHESTER, N. Y. (2,000,000).

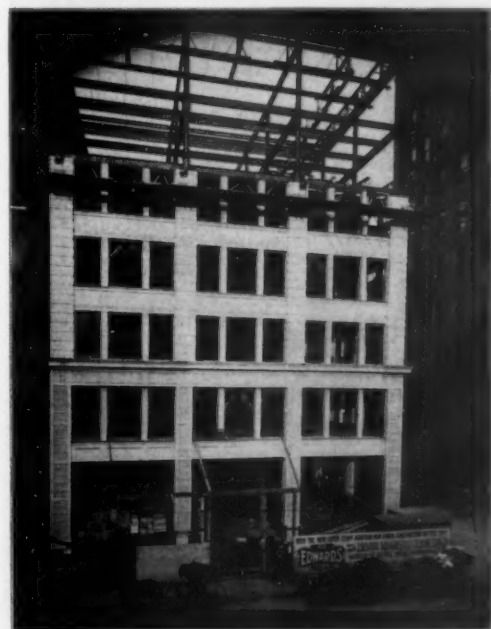
**SAND-LIME BRICK BUILDINGS.**

We print on this and the opposite page reproductions from photographs of buildings into which the product of the Rochester Composite Brick Co., Rochester, N. Y., was the principal factor in their construction. The factory of this concern is located on the Erie Canal, with connections to the New York Central and the Lehigh Valley railroads. W. M. Burchfield is manager of the Rochester Composite Brick Co. The figures indicate the number of bricks used.

Genesee Limestone Products Company, Inc., Mendon, N. Y.; quarry limestone, etc.; capital, \$150,000. Incorporators, J. E. Maher, E. L. Yedmans, O. F. Kiefer, Rochester.

The United States Portland Cement Co., Denver, Colo., has issued a booklet treating of the manufacture of Portland cement from the time the stone is quarried until it leaves the mill a finished product. Some interesting cost data is contained in the booklet and also a number of views of buildings erected in which concrete was the all important factor.

The Contractors' Machinery & Supply Co., of Pittsburgh, has recently acquired the entire equipment of the Drake & Stratton Co., of Hibbing, Minn., consisting of ten Marion steam shovels, nine Bucyrus, ranging from sixty to seventy-five tons each, and seventy-five dinky engines 9x14's, 10x16's and 12x16's. This equipment has all been thoroughly overhauled and is especially adapted for stone quarries and large contractors. This company are also large dealers in crushers, screens, elevators, concrete mixers, boilers and engines.



THE EDWARDS DEPARTMENT STORE, ROCHESTER, N. Y. (800,000).

Forty miles of cement walk are to be laid in New York City during the coming summer.

The White Waterproof Construction Company, of 525 Main street, East Orange, N. J., has been incorporated to manufacture waterproof materials. Capital stock, \$100,000.

The Crown Wire & Iron Works, 3848 West North avenue, Chicago, is a new concern organized for the manufacture and installation of ornamental and architectural iron and wire.

Edw. S. Walton president of the National Builders' Supply Association, was a Chicago visitor during the clay show. He took in several of the brick conventions in which he is particularly interested.

A five-story reinforced concrete warehouse is to be erected shortly by the Chattanooga (Tenn.) Warehouse & Cold Storage Company. The building will cost approximately \$100,000, occupying a site 100x180 feet.

The Wagner Studios, of Syracuse, N. Y., has been incorporated to manufacture art goods of cement, etc., with capital of \$20,000. Incorporators are Hugo C. Wagner, Charles J. Bausinger and Jacob F. Hecker, all of Syracuse, N. Y.

The quarry at Ives, Wis., now being operated by the Universal Crushed Stone Co., is to be deepened fifty feet or more this summer, according to recent information. At the completion of the work contemplated, the quarry will be over 155 feet deep.

The annual report of the National Fireproofing Company, Pittsburgh, Pa., for the year ended December 31, 1912, shows earnings of \$451,428, compared with \$436,071 in 1911, a slight increase. The report shows a deficit which is due to financing and expenditures to broaden the business of the company.

McCoy Silo Form Co., Pittsburgh, Pa., has issued a little circular descriptive of its forms for building concrete silos and of the merits of the monolithic concrete silo in particular. Many views are shown of silos in actual use and the construction of concrete silos, also diagrams indicating the process by which they are erected.

Harry Meyer, a well-known supply man of Cincinnati, O., has resigned from the Jacob Freund Roofing Company, affiliating with the Cincinnati Clay Products & Supply Company. Mr. Meyer has been given the vice-presidency of the concern, the promotion having been deserved by his good work in building circles with the Freund company.

J. C. Schaffer, to whose credit a long list of sand-lime plant achievements have been recorded, is now engaged by the Webster Manufacturing Co., of Tiffin, Ohio, in the capacity of mechanical engineer. He declares that he has got some new ideas about handling the raw material in the plant which are bound to be well received, because he had them knocked into him by experience.

**RAILROADS ACTIVE IN BUILDING.**

Memphis, Tenn., March 17.—It was announced recently that a new twenty-two story skyscraper would be erected in Memphis in the near future, known as the Railroad Exchange building, and to cost in the neighborhood of one million dollars. It is to be located at the corner of Main and Jefferson streets. It will be the home of all the ticket offices and other downtown offices, including passenger and freight departments, of all railroads entering Memphis. A long term of leases has been signed up by the interested roads. The balance of the building will be occupied by lawyers, who will have a free library supported by the building for their benefit. There will be more than 500 offices in the building.

Work is getting along very well for the preliminaries of the Illinois Central depot, the terminal work, etc., the old depot not having yet been torn away. The building will have nine stories. The station will be constructed to accommodate eleven trains at one time. The white passengers will enter from Main street and the colored from Calhoun. The Poplar street station will be used while the work is in progress, so far as the I. C. R. R. is concerned, while for the Frisco and Rock Island a temporary station will be erected.

Weston & Brooker Quarry Company, Columbia, S. C., has increased its capital stock from \$30,000 to \$150,000.

## CLASSIFIED ADVERTISEMENTS

Advertisements will be inserted in this section at the following rates:

For one insertion.....35 cents a line  
For two insertions.....45 cents a line  
For three insertions.....60 cents a line  
Eight words of ordinary length make one line.  
Headings counts as two lines.  
No display except the headings can be admitted.

Remittances should accompany the order. No extra charges for copy of paper containing the advertisement.

## EMPLOYEES WANTED

Wanted—Mine Superintendent for Eastern gypsum company. Must be experienced and have good references. Address Box 928, care Rock Products.

**WANTED.**

A thoroughly competent Superintendent for Washed and Screened Gravel Plant to be installed. An interest may be secured. Address, P. O. Box 566, Mobile, Ala.

Wanted—A married man, sober, industrious, capable and good handler of men to operate a ballast and fluxing stone quarry. Give references, experience and wages wanted. Address, Quarry, care Rock Products.

## EMPLOYMENT WANTED

Wanted—Position as Supt. of stone or slag crushing plant; thoroughly exp. with machinery and handling men; also office and business end; prefer large proposition; at present employed. Address 619, Rock Products.

Wanted—Position as superintendent or builder of lime plant. Address "Long Experienced," care Rock Products.

Wanted—Position as Superintendent of stone crushing plant. Thirty years' experience erecting and operating up-to-date large plants. References. N. H. Patnoc, Buffalo, Iowa.

## MACHINERY FOR SALE

For Sale— $\frac{1}{2}$  yd. Snell concrete mixer, without power, mounted on very good trucks, and in very good condition. Address, BALLOU'S WHITE SAND CO., Millington, Illinois.

For Sale—Bargain: 1 No. 1 Rotary Crusher, used only two weeks; 1 9"x18" 3 High Allis Chalmers Roller, never taken out of original shipping crates; 1 lot of Nestor Belting, not up to our specifications. The Kritzer Company, Chicago.

For Sale—Wood fibre machine in best of condition. This is a good opportunity for someone. Address R. L. W., care Rock Products.

**FOR SALE—BARGAIN.**

Entire system of induced draught for three lime kilns; galvanized pipes; two "Sirocco Blowers" and engine, practically new, being in use only one week. Potomac Valley Stone & Lime Co., Hagerstown, Md.

**MACHINERY WANTED**

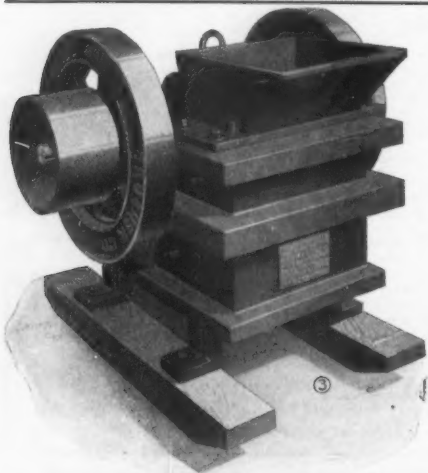
Wanted—One second-hand Vertical 30" or 36" Sturtevant Emery Mill. Address Frank Orth, Indiana Harbor, Ind.

Wanted—Second hand Meriman Gang Saw, about 8x 6x3 feet high with Hurst frame and Pitman complete. Give full description and lowest cash price. Eureka Rubbing Stone Co., Chicago, Ill.

Quarry Cars Wanted—30" gauge. Hopper bottom. About two yards capacity.  
Address BOX 923, care Rock Products.

**PLANT FOR SALE**

For Sale—Entire property and holdings consisting of ninety acres land with inexhaustible supply lime rock. Plant well equipped for getting out rock and manufacturing it into both raw and burnt lime; all necessary kilns and machinery. Capacity 50 to 100 tons per day. Located in heart of agricultural section and has no close competitors. Will gladly furnish information to parties interested. Address Box 921, care Rock Products.



As  
Large  
As  
3 1/2'

**UNIVERSAL "FORCE FEED" CRUSHER**

As  
Small  
As  
1'

**CAN BE ADJUSTED TO CRUSH TO ANY GIVEN SIZE**

We build 12 different sizes of crushers. Adjusted for all kinds of material. Capacity from 5 to 300 tons per 10 hours. State under what guarantee and terms we could get your order. You need a "UNIVERSAL"—the best machine to take care of your rejection. Let us prove it to you. Catalogue, folder and information promptly given. Write to

**UNIVERSAL CRUSHER CO., Cedar Rapids, Ia., 303 North 3rd Street**

**BUSINESS OPPORTUNITIES**

Wanted—Party to operate trap rock quarry and crusher in Upper Michigan on royalty basis.  
Address

M. L. R., care Rock Products.

**STONE LAND.**

For Sale—Several tracts of high grade limestone. Splendid location on water and railroad, suitable for flux, lime, cement, or for investment as prices are right. Herman Besser, Alpena, Michigan.

Wanted—Three (3) able men to finance and operate an artificial stone business on a large scale. Plenty of good business if ably handled. This is a legitimate business proposition that will pay 30% net profits. Work all year round in Oakland, Calif. Address J. C. SCOTT, attorney-at-law, 1007 Broadway, Oakland, Calif.

**EXCLUSIVE CONTROL GIVEN.**

Under our confidential trade note formulas and processes for the manufacture of concrete marble, decorative concrete, marble lumber, composition flooring, etc., by city, county or state licenses or by shop right license. No machinery required. Little capital, practically as yet. No competition. A profitable business proposition. For particulars address Art Stone Co., Box C, Waynesboro, Pa.

I have a large tract of sand land for sale. Finest proposition in the world. Can be loaded by gravity. Address T. J. Nertney, Ottawa, Ill.

**EXCELLENT INVESTMENT.**

Financially responsible parties now owning limestone quarries, want investor, experienced in the lime business, to join them in exploitation of properties located on railroad (trunk line), about 20 miles from very prosperous Canadian city—population nearly 500,000. Very promising and undeveloped territory, where no modern lime plant exists actually. Owners intend to build modern Rock Crushing and Lime Burning plant. Only responsible parties need communicate. Present owners will furnish all particulars and banking references. Address Box 927, care Rock Products.

**FOR SALE—BROWN IRON ORE AND GRAVEL LAND.**

500-acre Tract, containing Brown Iron Ore boulders outcroppings. 50 per cent pure iron by analysis. Vast hills of clay-gravel for road building; only supply near a county now using it. Inexhaustible hills of sand gravel, with creeks and bold springs running through. Pine and other timber for fuel and development. Good farm land. One mile Standard Railroad and Locomotive. Whole or part interest offered for short time. For further particulars address, Real Estate, care Rock Products.

# AETNA

40 per cent Aetna Gelatin is the best explosive for breaking hard rock in wet or dry work, because it contains within a given space the greatest amount of rending power at the right speed for rock breaking. Waterproof, dense, uniform.

## THE AETNA POWDER COMPANY

7 SOUTH DEARBORN STREET, CHICAGO

Bank of Commerce Building  
ST. LOUIS, MO.  
Knoxville, Tenn.

33 North High Street  
COLUMBUS, O.  
Chattanooga, Tenn.

Woodward Building  
BIRMINGHAM, ALA.  
Iron Mountain, Mich.

Mass. Building  
KANSAS CITY, MO.  
Xenia, O.

Torrey Building  
DULUTH, MINN.

Tell 'em you saw it in AMERICAN STONE TRADE



**||| If your Sales Department isn't keeping pace with your output an ad on this page will be of material assistance. |||**

### PROSPECTING

"THE BEAL CORE DRILL", is the best, cheapest, and most effective drill for testing quarries, coal and mineral lands. Borings made for foundations. A few holes put down with this machine, will show the different formations and prove the extent of the field to be explored. Contract work done, and new machines for sale. Correspondence solicited.

**EDWIN S. BEAL**  
214 Woodlawn Ave. Lansing, Mich.

### Ferguson & Lange Foundry Co. —CHICAGO—

Specialists in Hard Iron and Chilled Castings—  
Brick Yard Rolls—Hard Liners, etc. Gray  
Iron Castings, all kinds. Small Car Wheels.

### FOR SALE

Steam Shovels, Locomotives, Cranes, Rails, Cars,  
Cableways, Air Compressors, Stone Crushers, Etc.  
First-Class Released Material  
at the Right Prices.

**WM. B. GRIMSHAW CO.**  
688 Drexel Bldg. Philadelphia, Pa.

**CULVERTS**  
CONCRETE  
CULVERT FORM (Steel)  
ADJUSTABLE 15 SIZES \$47  
CATALOGUE FREE  
FRANCIS MACHINERY CO., 4 Market St., St. Louis, Mo.

### AIR COMPRESSOR

For Sale—One Ing.-Ser. Class G2 Duplex Steam  
and Cross Compound Air. Size 12 x 11½ and  
18½ x 14. Capacity, 638 ft. to 100 lbs. air pres-  
sure. Code name "Georgiana." Little used, fine  
condition; immediate shipment, must move;  
low price.

If you need Hoists, Cars, Derricks, Pumps, Loco-  
motive Cranes, Steam Shovels, etc., confer with me.

**WILLIS SHAW**  
1216 PEOPLES GAS BLDG. CHICAGO, ILL.

### Anchor Brand Colors

For Mortar, Cement and Brick  
Brown, Black, Red and Buff  
Strongest and Most Durable

Manufactured by **C. K. Williams & Co.**  
Correspondence Solicited Easton, Pa., U. S. A.

**CALVERT MORTAR COLORS**  
RED BROWN YELLOW BLACK  
A Few Good Reasons for Giving These Colors a Trial  
1. The success others have had in using them.  
2. Do not deteriorate in stock; good at all times.  
3. Mortar made to match the shade of BRICK easily.  
4. Do not fade when mixed, or after Mortar dries out.  
5. Better than Liquid Colors. Can use to last ounce.  
6. Low cost.  
The Kind You Will Eventually Buy Samples and Prices Gladly Furnished  
**SOLD TO DEALERS ONLY**



Stained with Cabot's Shingle Stains and lined with  
Cabot's Sheathing Quilt. Robert W. Spencer, Jr.,  
Architect, Chicago

### Cabot's Building Specialties

**Crescote Stains** for Shingles, Siding, Clapboards, Trimmings,  
Boards, and all other Exterior Woodwork.

**Waterproof Cement and Brick Stains** for waterproofing and artistic-  
ally coloring cement and brick buildings.

**"Quilt"** for lining houses to keep out cold or heat, for sound-dead-  
ening in floors and partitions, and for insulating cold storage and  
refrigerators.

**Conserve Wood Preservative** for preserving Posts, Planks, Sills and  
all other exposed timbers. Mortar Colors, Protective Paints for  
Metals, Waterproofing Compounds, etc.

**SAMUEL CABOT, Inc., Mfg. Chemists**  
BOSTON, MASS., U. S. A.

1133 Broadway, New York 350 Dearborn Ave. Chicago

**GRIFFITH & BUCK** Construction and Consulting Engineers  
EXPERTS IN OUR LINE:  
**Cement, Plaster, Lime, Concrete, Etc.**  
No contract too small or large for us. Examinations and reports.  
416-17 Central Savings Bank Bldg. DENVER, COLO.

**C. L. CARMAN** Consulting Engineer  
Specialist in  
Design of Portland Cement, Stone Crushing  
Plants Constructed and Remodeled  
Eastern Representative for the Cottrell Elec-  
tric Precipitation Process of Dust Elimination  
Room 919 Insurance Exchange Bldg., Chicago

### W. J. LEWIS & CO. Consulting Geologists

Quarry Projects and Management a Specialty.  
Exploration Reports—Estimation Reports.  
Economic and Efficient Operation Reports.

1312 First National Bank Building, Chicago

**G. P. GRIMSLEY, Ph. D.**  
MINING AND CONSULTING GEOLOGIST  
Formerly Ass't. State Geologist W. Va.; Formerly Geologist on Ohio,  
Michigan and Kansas Geological Surveys; Ex-Manager National Lime-  
stone Company. Consulting Geologist National Limestone Company.  
Examination, Reports, Consultation on development  
Limestone, Clay, Gypsum and Coal.  
Room 1105 Wyandotte Bldg. : Columbus, Ohio

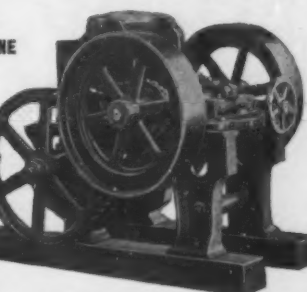
### MARTIN STONE CRUSHER AND GRINDER

IS A SAND  
MAKING MACHINE

Maximum  
Capacity  
25 tons  
Daily

Net Price

**\$90**



No. 2 Receiving Opening 12x5 inches  
Weight 1,800 lbs. 3 Horse Power

Guaranteed and sent on ten days'  
working trial, **send in your Order**  
and pay after you have tried it out.

Limestone, Lime, Fieldstone, Flint,  
Marble, Granite, Sandstone, Oyster  
shells, Rock, Etc., can be reduced at  
one operation to the fineness of sand,  
or to ½", ¼", ⅓", ⅔", 1" or 1½" for roads, con-  
crete materials and fertilizing purposes.

**H. MARTIN BRICK MACHINE MFG. CO.**  
Lancaster, Pa., U. S. A.  
Crushers built in larger sizes also

## Some Bargains in Quarry Equipment

- One No. 10 McCulley Crusher.
  - One No. 8 McCulley Crusher.
  - One No. 8 Gates Style D Crusher.
  - Two No. 7½ McCulley Crushers.
  - Two No. 6 McCulley Crushers, manganese fitted.
  - Two No. 6 Gates Crushers (one manganese fitted).
  - Two No. 5 McCulley Crushers, manganese fitted.
  - Two No. 5 Austin Crushers.
  - Two No. 4 Austin Crushers.
  - One No. 4 McCulley.
  - Six No. 3 McCulley, Austin and Gates Crushers.
  - Two No. 7½ Gates Crushers.
- All of the above are complete with screens and elevators,  
but will be furnished with or without as desired.

4—No. 4 Champion Jaw Crushers and elevator—portable.

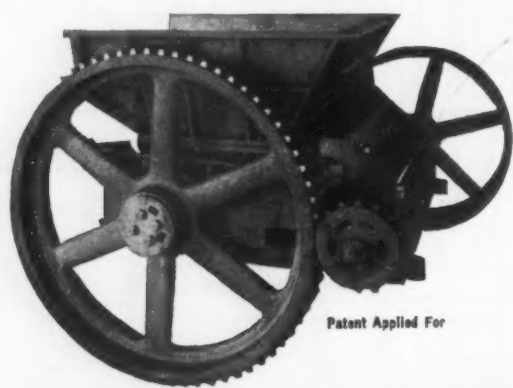
- 1—No. 10 Western Jaw Crusher and elevator—portable.
- 1—10x18 Fort Wayne with elevator—portable.
- 1—each 10x16 and 15x24 Buchanan—on skids.
- 13—9x14, 36" gauge, Porter Dinkies.
- 3—9x14, 36" gauge, Vulcan Dinkies.
- 4—9x14, 36" gauge, Davenport Dinkies.
- 1—18-ton Porter.
- 1—10x16, 36" gauge, Porter Dinkie.
- Several larger switches and locomotives.
- 2—No. 0 Thew Shovels.
- 3—Little Giant Traction Shovels.
- 2—Model 20 Marions.
- 2—45-ton Bucyrus.
- 5—65-ton Bucyrus.
- Several larger shovels of standard makes.

Write for Our Spring Bulletin of Bargains in Heavy Equipment Before You Buy. A Postal-Card Brings It.

**MARSH COMPANY,**

**971 Old Colony Building,**

**CHICAGO, ILLINOIS**



Patent Applied For

## SINGLE ROLL CRUSHERS

For Limestone, Phosphate Rock and Cinder, etc. Any Capacity from 5 to 500 Tons per Hour. More Easily Fed, Makes Less Fines than Either a Jaw or Gyratory Crusher. Information and Prices for the asking.

**McLANAHAN-STONE MACHINE CO., Hollidaysburg, Pa.**

## FOUND AT LAST



A PERFECT STEAM SHOVEL CHAIN  
"HERCULES SOLID WELD"

EVERY LINK AS STRONG AS THE SOLID BAR

Cannot come apart at welds. Made from tough high grade hammered iron.  
The chain that lasts until entirely worn out.  
No delays from broken chain. It is a marvel in rock work.

Made only by

**THE COLUMBUS CHAIN COMPANY**

Lebanon, Pa.

Columbus, Ohio

Address all communications to COLUMBUS, OHIO

# GEARS

## MACHINE-MOLDED



For the machine molding process an accurate pattern of but one tooth is required. This pattern or tooth block is mechanically spaced around the circumference of the gear, insuring each tooth being a duplicate of every other tooth. The result is a gear as near perfect as a cast gear can be made.

### CALDWELL - WALKER

Gears run smooth without noise and transmit full loads without waste of power. Cost no higher than inferior gears.

Send your inquiry for prices on Screw Conveyors, Steel Elevator Casings, Pulleys, Bearings, Rope Sheaves, etc. We manufacture complete equipments of Elevating, Conveying and Power Transmitting Machinery.

Catalog No. 34 should be in your files—ask for a copy.

## H. W. CALDWELL & SON CO.

**CHICAGO:** Western Avenue, 17th to 18th Sts.

**NEW YORK:** Hudson Terminal, 50 Church Street

### ROCK PRODUCTS

### Index to Advertisements

MARCH 22, 1913

Aetna Powder Co. .... 50  
Allen Amer. Manganese Steel Co., Edgar ..... 9  
Allis-Chalmers Co. .... 9  
Alpha Portland Cement Co. .... 2  
American Clay Machine Co. .... 63  
American Fabric Belt Co. .... 58  
American Keene Cement Co. .... 1  
American Locomotive Co. .... 4  
American Process Co. .... 18  
American Pulverizer Co. .... 7  
American Steel & Wire Co. .... 11  
Anchor Concrete Stone Co. .... 54  
Atlas Car & Mfg. Co. .... 64  
Atlas Portland Cement Co. .... 64  
Austin Mfg. Co. .... 7  
Automatic Weighing Machine Co. .... 10  
Bacon, C. Earle ..... 18  
Bartlett, C. O., & Snow Co., The ..... 53  
Beal, Edwin S. .... 51  
Best Bros. Keene's Cement Co. .... 61  
Bonnot Co., The ..... 8  
Books for the Trade ..... 56  
Bradley Pulv. Co. .... 4  
Buffalo Wire Works Co. .... 15  
Butterworth & Lowe ..... 7  
Cabot, Samuel, Inc. .... 51  
Caldwell, H. W., & Son Co. .... 32  
Canada Cement Co. .... 2  
Canada Pebble Co., Ltd. .... 56  
Carman, C. L. .... 51

Carolina Portland Cement Co. .... 1  
Chattanooga Paint Co. .... 60  
Chicago Belting Co. .... 1  
Chicago Portland Cement Co. .... 31  
Chrome Steel Works ..... 9  
Classified Business Directory ..... 55  
Clinton Metallic Paint Co. .... 32  
Columbus Chain Co., The ..... 52  
Contractors Machy. & Sup. Co. .... 59  
Coplay Cement Mfg. Co. .... 32  
Cottonwood Fibre Co. .... 61  
Cummer & Son Co., F. D. .... 61  
Cyclone Quarry Drill Co. .... 16  
Davenport Loco. Works ..... 63  
Dexter Portland Cement ..... 1  
Dull & Co., Raymond W. .... 63  
Dunning, W. D. .... 63  
Eberlin Cement Mach. Co. .... 5  
Ehrsam, J. B., & Sons, Mfg. Co. .... 5  
Electric Locomotive & Car Co., The ..... 15  
Farnham Cheshire Lime Co. .... 18  
Farrell Fdy. Mch. Co. .... 18  
Ferguson & Lange Foundry Co. .... 51  
Francis Mch. Co. .... 51  
French, Samuel H., & Co. .... 1  
Fuller Eng. Co. .... 33  
Goodrich Co., The B. F. .... 57  
Griffith & Buck ..... 51  
Grimshaw, Wm. B., Co. .... 51  
Grimsey, G. P. .... 51

Hendrick Mfg. Co. .... 59  
Howells Mining Drill Co. .... 18  
Hunt, Robt. W., & Co. .... 32  
Imperial Belting Co. .... 34  
Improved Equipment Co. .... 18  
Ironport Portland Cement Co. .... 2  
Jeffrey Mfg. Co. .... 56  
Johnston & Chapman Co. .... 16  
Kansas City Pt. Ct. Works ..... 31  
Kelley Island Lime & Trans. Co. .... 12  
Kent Mill Co. .... 8  
King, J. B., & Co. .... 60  
Koehler, Hy. L., Mfg. Co., The ..... 14  
Kritzer Company, The ..... 14  
Lehigh Portland Cement Co. .... 2  
Lewis, W. J., & Co. .... 51  
Lewiston Fdy. & Mch. Co. .... 9  
Link Belt Co. .... 59  
McCormick Waterproof Portland Cement Co. .... 64  
McLanahan Stone Mch. Co. .... 52  
MacNeal, Jas. B., & Co. .... 51  
Marblehead Lime Co. .... 13  
Marsh Co. .... 51  
Martin, Henry, Brick Machine Mfg. Co. .... 51  
Maumee Chemical Co. .... 33  
Meacham & Wright ..... 32  
Meade, Richard K. .... 32

Miller, Clifford L., & Co. .... 9  
Miscampbell, H. .... 15  
Mitchell Lime Co. .... 12  
Monolithic Silo & Constr. Co. .... 17  
Moore's Lime Co., The ..... 12-42  
National Lime & Stone Co. .... 13  
National Mortar & Supply Co. .... 10  
National Retarder Co. .... 10  
Nagars Gypsum Co. .... 60  
Northwestern States P. C. Co. .... 2  
Novo Engine Co. .... 57  
Nuttall, R. D., Co. .... 53  
Ohio & Western Lime Co. .... 13  
Ottawa Silica Co. .... 1-32  
Pennsylvania Crusher Co. .... 2  
Pettyjohn Co., The ..... 53  
Phoenix Portland Cement Co. .... 61  
Plymouth Gypsum Co., The ..... 61  
Power & Mining Mach. Co. .... 57  
Raymond Bros. Impact. Pulv. Co., The ..... 3  
Reeb, M. A. .... 32  
Ricketson Mineral Paint Wks. .... 60  
Rock Plaster Mfg. Co. .... 32  
Ruggles-Cole Eng. Co. .... 17  
Sandusky Portland Cement Co. .... 18  
Saucerman Bros. .... 62  
Scioto Lime & Stone Co. .... 13

Security Cement & Lime Co. .... 31  
Sexton, Inc. .... 62  
Shaw, Willis ..... 51  
Smidth, F. L., & Co. .... 33  
Standard Scale & Supply Co. .... 62  
Stephens-Adamson Mfg. Co. .... 33  
St. Louis Portland Cement Co. .... 31  
Sturtevant Mill Co. .... 17  
Symons Bros. Co. .... 6  
Taylor-Wharton Iron & Steel Co. .... 9  
Troy Wagon Works Co., The ..... 58  
Trus Con Laboratories, The ..... 58  
Union Mining Co. .... 1  
Union Sand & Material Co. .... 31  
United Wire Tie Co. .... 58  
Universal Crusher Co. .... 50  
Universal Portland Cement Co. .... 34  
Wadsworth, Howland & Co., Inc. .... 11  
Webster Mfg. Co. .... 33  
Weller Mfg. Co. .... 15  
West Jersey Bag Co. .... 31  
Whitehall Cement Mfg. Co. .... 32  
Williams, C. K., & Co. .... 51  
Williams Patent Crusher and Pulverizer Co. .... 6  
Wolverine Portland Cement Co. .... 2  
Woodville Lime & Cement Co. .... 3  
Worrell, S. E. .... 18

Tell 'em you saw it in ROCK PRODUCTS





## IMPORTANT TERRITORY STILL OPEN



There are still a few important points and some very good territory where dealers and distributors are yet to be arranged for, to handle and co-operate in the sale of

# TRUS-CON

## WATERPROOFINGS — DAMPPROOFINGS — TECHNICAL PAINTS

This is a complete line of more than twenty different materials, covering the entire field of waterproofing products and dampproof coatings. The goods are of the highest quality and efficiency, in addition to affording a steady market and a very generous profit to the trade. Advertising and sales co-operation is furnished together with a strong and convincing line of printed matter, samples, etc.

### ARE YOU OPEN TO A PROPOSITION?

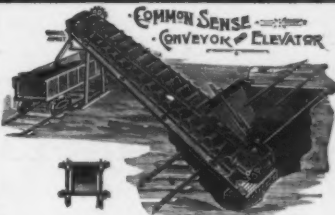
Write fully, advising as to your sales organization and territory covered. Are you now handling any similar materials? If so, state kind and name. You will have to act quickly as territory is fast being allotted.



**THE TRUS-CON LABORATORIES**  
426 Trus-Con Building, DETROIT, MICHIGAN



Send for Catalog 25



**THE GENERAL CRUSHED STONE CO.,**

So. Bethlehem, Pennsylvania,

have been using one of our Common Sense Elevators for six years—  
capacity 400 tons an hour.

**THE C. O. BARTLETT & SNOW CO. CLEVELAND OHIO**

## ROCK PRODUCTS

is the best advertising medium because  
ITS CIRCULATION COMPRISES

**QUALITY, QUANTITY and  
:: :: DISTRIBUTION :: ::**

### PERFECTION IN BLOCK MAKING

If you wish to attain this you should combine these three important features:

**Wet Process, Face Down,  
Damp Curing.**

The PETTYJOHN INVINCIBLE Machine does this, and is the only machine that does. Tandem Invincible makes two blocks at once. Price \$65.00 and up. Single Invincible, \$35.00 and up. With our Triple Tier Racking System green blocks can be stacked three high direct from machine with inexpensive home-made rigging. Plans and blue prints free to customers. It economizes space, reduces off-bearing distance and above all insures slow, even, damp and perfect curing and bleaching.

Write for our latest edition of "Stone Making," a book of valuable data, just off the press—FREE.

**THE PETTYJOHN COMPANY**

614 North Sixth Street. Terre Haute, Indiana.

## GEARS

Nearly all manufacturers of cement  
mill machinery use Nuttall Gears

The Nuttall Company has made a number of tests of cement mill installations, its engineers have a thorough knowledge of the operating conditions and will specify gears cut from material of the proper chemical constituents to assure Reliability and Low Maintenance Cost.

Let us know your requirements.

**Nuttall-Pittsburgh**



Tell 'em you saw it in ROCK PRODUCTS

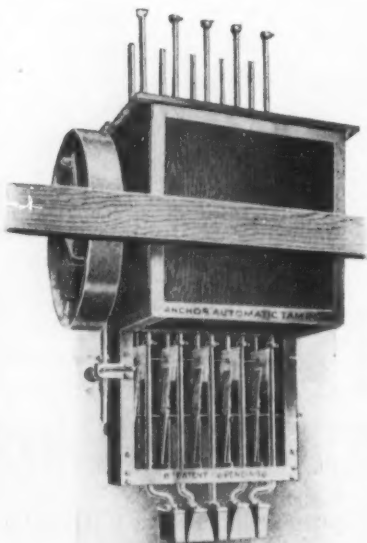
# ANCHOR

## Automatic Tamper

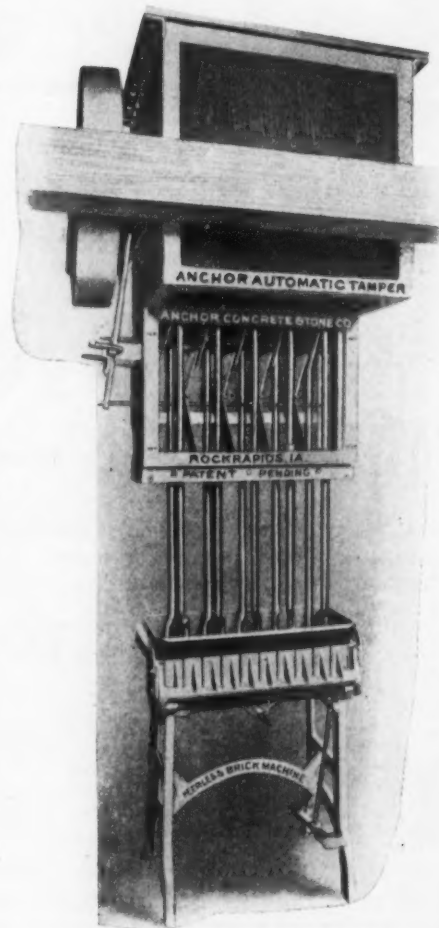
For use on any and all

## Concrete Block or Brick Machines

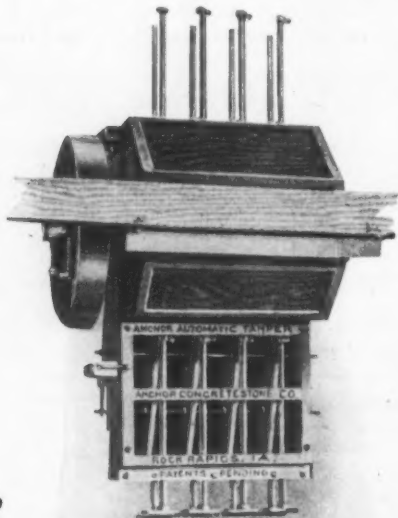
A serviceable adaptable adjustable everlasting tamper that appeals immediately to every concrete block or brick machine owner. This Tamper will treble your output and will save its cost in thirty days. Will produce a block at least 100 per cent better than is possible by hand tamping.



ANCHOR AUTOMATIC TAMPER  
working on Ideal or X L  
Block Machines.



ANCHOR AUTOMATIC TAMPER  
working on the Peerless  
Brick Machine.



ANCHOR AUTOMATIC TAMPER  
working on the ANCHOR  
Block Machine.



## Anchor Tamper Facts

- Operates with 1½ H. P. Engine.
- As compared with others it is noiseless.
- Solid steel construction.
- All working parts housed.
- Capacity unlimited, as it requires NO EXTRA TIME to tamp.
- Tamping takes place as the workmen fill the mold.
- Average output per day—from 500 to 700 cement blocks and from 8,000 to 12,000 cement bricks.
- Requires no room in your factory except the space directly above the mold box.
- There is no wear-out to it and no up-keep expense.
- Its 8 tampers strike the concrete 80 600-pound blows per minute, filling all voids and insuring absolute and uniform density.

**Anchor Concrete Stone Company**  
ROCK RAPIDS, IOWA

## OUR GUARANTEE

On account of the superior construction of the Anchor Automatic Tamper we guarantee our machines to do everything we claim for them. We further guarantee to furnish free of charge any and all parts that may break or wear out for three years from the date of purchase. This guarantee carries all upkeep for a period of three years except for carelessness and accident.

## Anchor Block Machine Facts

Make continuous air-space blocks, frost and moisture proof assuring a dry inner wall without the use of furring strips and lath.

Makes a perfect block at all times, Standard machines make blocks that lay in the wall 24 in. in length and from 8 in. to 12 in. in width.

Junior machines make blocks that lay in the wall 16 in. in length and from 8 in. to 12 in. in width.

Both machines have a very complete equipment, making fractional and corner blocks for each separate width, together with a large variety of face-plates. Either machine will make any desired block for any building.

**Let Us Prove  
These  
Facts**

Name.....  
Town.....  
State.....

Gentlemen:  
Please mail me  
immediately your  
descriptive literature  
of your block machine  
and tamper.

Tell 'em you saw it in ROCK PRODUCTS



# CLASSIFIED BUSINESS DIRECTORY

## BAGS.

West Jersey Bag Co., The.

## BAG TYERS.

Miller & Co., Clifford L.  
United Wire Tie Co.

## BAG PRINTERS.

Koehler Co., Hy. L.

## BELTING.

American Fabric Belting Co.  
Chicago Belting Co.  
Imperial Belting Co.  
Link-Belt Co.  
Main Belting Co.  
Stephens-Adamson Mfg. Co.  
Webster Mfg. Company.  
Weller Mfg. Co.

## BUCKETS, DUMPING AND GRAB.

Atlas Car & Mfg. Co.  
Hendrick Mfg. Co.

## CABLES.

American Steel & Wire Co.  
Sauerman Bros.

## CASES.

Electric Locomotive and Car Co., The.

## CASTINGS.

Ferguson & Lange Fdy. Co.

## CEMENT BRICK MCHY.

Bartlett, C. O., & Snow Co.  
Martin-Henry Brick Machine Mfg. Co.

## CEMENT, HYDRAULIC.

Carolina Portland Cement Co.

## CEMENT MCHY.

Allis-Chalmers Co.  
American Pulverizer Co.  
Anchor Concrete Stone Co.  
Bonnot Co., The.  
Bradley Pulverizer Co.  
Canada Pebble Co.  
Contractors Mach. & Sup. Co.  
Cummer, F. D., & Son Co.  
Eberling Cement Mach. Co., The.  
Jeffrey Manufacturing Co.  
Kent Mill Co.  
Miscampbell, H.  
Raymond Bros. Impact Pulverizing Co.  
Ruggles-Coles Eng. Co.  
Smith & Co., F. L.  
Sturtevant Mill Co.  
Symons Bros.

## CEMENT, PORTLAND.

Alpha Portland Cement Co.  
Atlas Portland Cement Co.  
Canada Cement Co.  
Carolina Portland Cement Co.  
Chicago Portland Cement Co.  
Coplay Cement Mfg. Co.  
Dexter Portland Cement Co.  
Frenche, Samuel H., & Co.  
Kansas City Portland Cement Co.  
Ironton Portland Cement Co.  
Lehigh Portland Cement Co.  
Meacham & Wright Co.  
Northwestern States Portland Cement Co.  
Phoenix Portland Cement Co.  
Sandusky Portland Cement Co.  
St. Louis Portland Cement Works.  
Security Cement & Lime Co.  
Union Sand & Material Co.  
Universal Portland Cement Co.  
Whitehall Portland Cement Mfg. Co.  
Wolverine Portland Cement Co.  
Woodville Lime & Cement Co., The.

## CHAINS.

Columbus Chain Co., The.  
Taylor-Wharton Iron & Steel Co.

## CLAY PRODUCTS.

Improved Equipment Co.  
Louisville Fire Brick Co.  
Union Mining Co.

## CLAYWORKING MCHY.

American Clay Working Mch. Co.  
Bartlett, C. O., & Snow Co.  
Cummer, F. D., & Son Co.

## COMBUSTION ENGINEERS.

Improved Equipment Co.

## CONCRETE BLOCK MCHY.

Francis Machinery Co.  
Pettyjohn, The, Co.

## CONCRETE MOLDS AND FORMS.

Monolithic Silo & Const. Co.  
Read & Morrill, Inc.

## CONCRETE MIXERS.

Miscampbell, H.  
Standard Scale & Supply Co.

## COLORINGS, BRICK AND MORTAR.

Chattanooga Paint Co.  
Clinton Metallic Paint Co.  
Macneal, James B., & Co.  
Ricketson Mineral Paint Works.  
Williams, C. K., & Co.

## CONCRETE REINFORCEMENT.

American Steel & Wire Co.  
Buffalo Wire Works Co.

## CONVEYORS.

Allis-Chalmers Co.  
American Fabric Belting Co.  
Austin Mfg. Co.  
Bartlett, C. O., & Snow Co.  
Caldwell, H. W., & Sons Co.  
Dull, Raymond W., & Co.  
Ersham, J. B., & Sons Mfg. Co.  
Goodrich Co., The B. F.  
Jeffrey Manufacturing Co.  
Link-Belt Co.  
McLanahan Stone Machine Co.  
Stephens-Adamson Mfg. Co.  
Webster Mfg. Company.  
Weller Mfg. Co.

## CONSULTING GEOLOGISTS.

Grimsley, G. P., Ph. D.  
Lewis & Co., W. J.

## CRUSHERS.

Allen Edgar American Manganese Steel Co.  
Allis-Chalmers Co.  
Austin Mfg. Co.  
Bacon, Earl C.  
Bartlett, C. O., & Snow Co.  
Bonnot Co., The.  
Bradley Pulverizer Co.  
Butterworth & Lowe.  
Chrome Steel Works.  
Ehrsam, J. B., & Sons Mfg. Co.  
Jeffrey Manufacturing Co.  
Kent Mill Co.  
Lewistown Foundry & Machine Co.  
Marsh Co.  
Martin, Henry.  
McLanahan Stone Machine Co.  
Pennsylvania Crusher Co.  
Power & Mining Mach. Co.  
Symons Brothers.  
Sturtevant Mill Co.  
Taylor Iron & Steel Co.  
Universal Crusher Co.  
Williams Pat. Crusher & Pulverizer Co.

## CUT GEARS.

Nuttall, R. D., Co.

## DRILLS.

Cyclone Quarry Drill Co.  
Howells Mining Drill Co.

## DRYERS.

American Process Co.  
Bartlett, C. O., & Snow Co.  
Cummer, F. D., & Son Co.  
Ruggles-Coles Eng. Co.  
Worrell, S. E.

## DUMP CARS.

Atlas Car & Mfg. Co.  
Austin Mfg. Co.  
Electric Locomotive and Car Co., The.  
Stephens-Adamson Mfg. Co.  
Weller Mfg. Co.

## DYNAMITE AND POWDER.

Aetna Powder Co.

## ENGINEERS.

Bacon, Earl C.  
Carman, C. L.  
Dull, Raymond W., & Co.  
Fuller Engineering Co.  
Griffith & Buck.  
Grimsley, G. P.  
Improved Equipment Co.  
Lewis, W. J., & Co.  
Meade, R. K.  
Smith & Co., F. L.

## ENGINES.

Novo Engine Co.

## FIRE BRICK.

Carolina Portland Cement Co.  
Houston Bros. Co.  
Improved Equipment Co.  
Union Mining Co.

## FURNACES FOR SPECIAL PURPOSES.

Improved Equipment Co.

## GAS AND GASOLINE ENGINES.

Cyclone Quarry Drill Co.

## GAS PRODUCERS.

Improved Equipment Co.

## GEARS.

Caldwell, H. W., & Son Co.  
Nuttall, R. D., & Co.  
Taylor-Wharton Iron & Steel Co.  
Weller Mfg. Co.

## GYPSUM—PLASTER.

American Keene Cement Co.  
Best Bros. Keene's Cement Co.  
Carolina Portland Cement Co.  
Cottonwood Fibre Co.  
King, J. B., & Co.  
National Mortar & Supply Co.  
Niagara Gypsum Co.  
Plymouth Gypsum Co.  
Reeb, M. A.  
U. S. Gypsum Co.

## HARDENING CYLINDERS.

American Clay Machinery Co.

## HYDRATING CYLINDERS.

Kritzer, The, Co.  
Miscampbell, H.

## HYDRATING MCHY.

Kritzer, Co., The.

## LIME.

Carolina P. C. Co.  
Farnam-Cheshire Lime Co.  
Houston Bros. Co.  
Kelly Island Lime & Trans. Co.  
Marblehead Lime Co.  
Mitchell Lime Co.  
The Moores Lime Co.  
National Lime & Stone Co.  
National Mortar & Supply Co.  
Ohio & Western Lime Co., The.  
Scioto Lime & Stone Co.

## LIME, HYDRATED.

Kelley Island Lime & Transport Co.  
Marblehead Lime Co.  
The Moores Lime Co.  
National Lime & Stone Co.  
National Mortar & Supply Co.  
Ohio & Western Lime Co., The.  
Scioto Lime & Stone Co.  
Woodville Lime & Cement Co., The.

## LIME KILNS.

Improved Equipment Co.

## LIME PLASTER.

Aluminate Patents Co.

## LOCOMOTIVES.

American Locomotive Co.  
Davenport Locomotive Wks.  
Electric Locomotive and Car Co., The.

## MANGANESE STEEL.

Allen Edgar Manganese Steel Co.  
American Steel Foundries.  
Taylor-Wharton Iron & Steel Co.

## METAL LATH.

Buffalo Wire Works Co.  
Carolina Portland Cement Co.  
Houston Bros. Co.

## PERFORATED METALS.

Johnson & Chapman Co.

## PNEUMATIC TOOLS.

Howells Mining Drill Co.

## PLASTER MCHY.

Butterworth & Lowe.  
Cummer, F. D., & Son Co.  
Dunning, W. D.  
Ersham, J. B., & Sons Mfg. Co.  
Miscampbell, H.  
Williams Pat. Crusher & Pulverizer Co.

## PULVERIZERS.

Allis-Chalmers Co.  
American Pulverizer Co.  
Bonnot Co., The.  
Bradley Pulverizer Co.  
Jeffrey Manufacturing Co.  
Kent Mill Co.  
Pennsylvania Crusher Co.  
Raymond Bros. Impact Pulverizer Co.  
Sturtevant Mill Co.  
Williams Pat. Crusher & Pulverizer Co.

## RAILROAD MATERIAL.

Allis-Chalmers Co.  
Atlas Car & Mfg. Co.

## ROOFING MATERIAL.

Barrett Mfg. Co.  
Carolina Portland Cement Co.  
Houston Bros. Co.

## SAND.

Ottawa Silica Co.  
Union Sand & Material Co.

## SAND AND GRAVEL WASHING PLANTS.

Dull & Co., Raymond W.  
Stephens-Adamson Mfg. Co.  
Webster Mfg. Co.  
Weller Mfg. Co.

## SAND-LIME BRICK MCHY.

American Clay Working Mch. Co.  
Miscampbell, H.

## SCREENS.

Buffalo Wire Works.  
Butterworth & Lowe.  
Dull & Co., Raymond W.  
Ersham, J. B., & Sons Mfg. Co.  
Hendricks Mfg. Co.  
Johnson & Chapman Co.  
McLanahan Stone Machine Co.  
Stephens-Adamson Mfg. Co.  
Sturtevant Mill Co.  
Webster Mfg. Company.  
Weller Mfg. Co.

## SCREEN SECTIONS.

Johnson & Chapman Co.

## STEAM SHOVELS.

Allen Edgar Manganese Steel Co.  
American Locomotive Co.  
Contractors Mach. & Sup. Co.

## STEAM SHOVEL TEETH.

Taylor-Wharton Iron & Steel Co.

## STUCCO RETARDER.

National Retarder Co.

## TUBE MILLS.

Allis-Chalmers Co.  
Smith & Co., F. L.

## WAGONS.

Troy Wagon Wks. Co., The

## WATERPROOFING.

Barrett Mfg. Co.  
Cabot, Samuel, Inc.  
Carolina Portland Cement Co.  
Maumee Chemical Co.  
Sandusky Portland Cement Co.  
Trus-Con Laboratories  
Wadsworth, Howland & Co., Inc.

## WEIGHING MACHINES.

Automatic Weighing Machine Co.  
Sturtevant Mill Co.

## CANADA PEBBLES

Carefully selected  
as to size.

Best shapes.

Will not break or  
flake in Tube Mill.

### CANADA PEBBLE CO., Limited

Highest Grade Grinding  
Pebbles for Tube Mills

PORT ARTHUR, ONTARIO, CANADA

The Feeding device of a

## Jeffrey Vibrating Screen

Insures a Uniform Flow and Even  
Distribution of Material



This feeder consists of a sheet-steel pan on the upper part of the shaker frame, with its edge turned up in a narrow flange, which acts as a dam to hold back the material. A slight rapid movement of this frame shakes the material over the upturned edge in a uniform stream.

The feed can be quickly adjusted for any amount by raising or lowering the steel throat plate (even while the machine is running.)

Write for Bulletin 69E giving additional information.

### Jeffrey Mfg. Co., Columbus, O.

New York  
Boston  
Philadelphia  
Pittsburgh

Cleveland  
Charleston, W. Va.  
Atlanta, Ga.

Birmingham  
Chicago  
St. Louis

Denver  
Seattle  
Montreal  
3-22-13

## BOOKS FOR THE TRADE

### Cement Users

- The Uses of Hydraulic Cement  
Frank Harvey Eno. Price \$1.00
- Portland Cement for Users  
Henry Falja and D. B. Butler. Price \$1.20
- Cements, Mortars and Concrete  
Myron C. Falk. Price \$2.50
- Reinforced Concrete  
W. H. Gibson and W. L. Webb. Price \$1.00
- Concrete System  
F. B. Gilbreth. Price \$5.00
- Hand Book of Cost Data  
Halbert P. Gillette. Price \$4.00
- Concrete Construction  
H. P. Gillette and C. S. Hill. Price \$5.00
- Cement Workers' and Plasterers' Ready Reference  
H. G. Richey. Price \$1.50
- Notes on Testing and Use of Hydraulic Cement  
Fred P. Spalding. Price \$2.00
- Reinforced Concrete  
A. W. Buel and C. S. Hill. Price \$5.00
- Concrete  
Edward Godfrey. Price \$2.50
- Reinforced Concrete  
C. F. Marsh and Wm. Dunn. Price \$7.00
- Practical Treatise on Foundations  
W. Patton. Price \$5.00
- Concrete  
Thomas Potter. Price \$3.00
- Cement and Concrete  
Louis C. Sabin. Price \$5.00
- Practical Reinforced Concrete  
H. B. Andrews. Price \$2.00
- Concrete and Reinforced Concrete Construction  
Homer A. Reid. Price \$5.00
- Handbook on Reinforced Concrete  
F. D. Warren. Price \$2.50
- Sewers and Drains  
Anson Marston. Price \$1.00
- Concrete  
Edward Godfrey. Price \$2.50
- Popular Handbook for Cement and Concrete Users  
Myron H. Lewis & A. H. Chandler. Price \$2.50

### Cement and Lime Manufacturers

- Bungalows, Camps and Mountain Houses  
Price \$2.00.
- Manufacturer of Hydraulic Cement  
A. V. Bleininger. Price \$1.25.
- Limes, Cements and Mortars, Concretes, Mastics, etc.  
G. R. Burnell. Price \$0.60.
- Portland Cement; Its manufacture, testing and use  
David B. Butler. Price \$5.00.
- Instructions to Inspectors on Reinforced Concrete Construction  
Geo. P. Carver. Price \$0.50.
- Lime, Mortar and Cement  
A. I. Dibbin. Price \$2.00.
- Cements, Limes and Plasters  
Edwin C. Eckel. Price \$6.00.
- Practical Treatise on Limes, Hydraulic Cements and Mortars  
Gen. Q. A. Gillmore. Price \$4.00.
- Mortars, Plasters, Stuccos, Concretes, Portland Cements and Compositions  
F. Hodgson. Price \$1.50.
- Experimental Researches upon the Constitution of Hydraulic Mortars  
H. LeChatelier. Price \$2.00.
- Concrete Factories  
Robert W. Lesley. Price \$1.00.
- Portland Cement; Composition  
Richard K. Meade. Price \$3.50.
- The Constitution of Hydraulic Cements  
S. B. Newberry. Price \$0.50.
- Manufacture of Concrete Blocks  
Wm. M. Torrence and others. Price \$1.50.
- Practical Cement Testing  
W. Purves Taylor. Price \$3.00.
- Notes on the Testing and Use of Hydraulic Cement  
Fred P. Sutcliffe. Price \$1.00.
- Calcareous Cements  
G. R. Redgrave and Charles Speckman.
- Gas Engines and Producers  
L. S. Marks and S. S. Wyer. Price \$1.00
- Foundation and Concrete Works  
E. Dobson. Price \$0.60.

### Architects and Engineers

- Building Construction and Superintendence—Masonry Work  
F. E. Kidder. Price \$6.00.
- Hydraulic Engineering  
F. E. Turneaure and Adolph Black. Price \$3.00.
- Analysis of Elastic Arches of Steel, Masonry and Reinforced Concrete  
Joseph W. Balet. Price \$3.00
- Theory of Steel-Concrete Arches and Vaulted Structures  
Wm. Cain. Price \$0.50.
- Concrete Country Residences  
Price \$1.00.
- Graphical Handbook for Reinforced Concrete Design  
John Hawkesworth, C. E. Price \$2.50.
- Architects' and Engineers' Handbook of Reinforced Concrete Construction  
L. J. Mensch. Price \$2.00.
- Theory and Design of Reinforced Concrete Arches  
Arvid Reutterdahl. Price \$2.00.
- Treatise on Concrete, Plain and Reinforced  
F. W. Taylor and S. E. Thompson. Price \$5.00.
- Concrete Engineers' and Contractors' Pocketbook  
Wm. F. Tubessing. Price \$1.00.
- Concrete Steel  
W. N. Twelvetrees. Price \$1.90.
- General Specifications for Concrete Work as Applied to Building Construction  
Wilbur J. Watson. Price \$0.50.
- Strength of Materials  
Edward R. Maurer. Price \$1.00.
- Highway Construction  
Austin T. Byrne and Alfred E. Phillips. Price \$1.00.
- Principles of Reinforced Concrete Construction  
F. E. Turneaure and E. R. Maurer. Price \$3.00.
- Refrigeration  
Chas. Dickerman and Francis H. Boyer. Price \$1.00.
- Heating and Ventilation  
Charles L. Hubbard. Price \$1.50.
- Plumbing  
Wm. Beall, Gray and Chas. B. Ball. Price \$1.50.
- Estimating  
Edward Nichols. Price \$1.00.
- Building Superintendence  
Edward Nichols. Price \$1.50.

ROCK PRODUCTS,

537 South Dearborn Street,

CHICAGO

Tell 'em you saw it in ROCK PRODUCTS



## Put your Conveying Problem up to the House that Knows

A big department of the biggest Rubber House in the world is at your service. Use us.



### Let us advise the thickness of the cover of the belt for your Conveyor System

The life of the belt depends upon the cover.

When the cover is worn through, the life of the rest of the belt will be short, if the material conveyed is of an abrasive nature.

The cover on the carrying side gets the brunt of this wear. It must be tough and serviceable.

The thickness should be in proportion to the abrasive nature

of the commodity carried, the length of the conveyor, the desired life.

We study the conveying needs of various concerns and devise belts of the proper strength and cover-thickness.

Tell us about your business and we can tell you the kind of belt that will deliver you the *longest service*, at smallest conveying cost. Get posted on the GOODRICH CONVEYING BELT.

The B. F. Goodrich Company  
Akron, Ohio



### "I Will Not Accept Your Mixer Unless It Has a Novo Engine."

That's what a contractor recently wrote a cement machinery manufacturer. That's what you want to say to your machinery supply man.

**NOVO ENGINE**

"The Engine for Every Purpose."

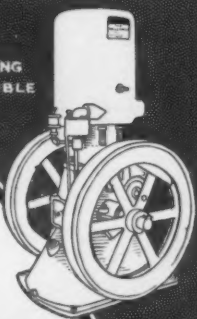
It will mean economy in fuel, economy in labor, economy in time. No skilled engineer is needed for a Novo and its light weight—the lightest engine for power developed—makes shifting position an easier and quicker matter. Time lost moving mixers brings no profit.

The Novo is free from lateral vibration and free from danger of damage from freezing. It runs in any weather. Made in ten sizes; 1 to 15 h. p.

Send for Novo Catalog

and let us tell you of the hundreds of contractors who are using Novo Engines

**Novo Engine Co.** Clarence E. Bement, Sec'y and Gen'l Mgr.  
222 Willow Street, Lansing, Mich.



NO TANK  
NO FAN  
NO FREEZING  
TROUBLE

## A PROOF NOT AN ARGUMENT

On the PANAMA CANAL.....80%  
On the CATSKILL AQUEDUCT... 75%  
On the NEW YORK STATE  
BARGE CANAL..... 50%

of all the ROCK CRUSHING is being done with

### McCully Gyratory Crushers

Could ANYTHING be MORE CONVINCING of Their MERITS?

Of course, these are exceptionally large jobs.

That is just why we mention them. There are a great many different contractors involved

and it is evident how many of them agree as to which is THE crusher. Moreover, it is for such large jobs that the greatest care is taken to select the BEST crusher. Only the best is good enough.

On small jobs this is not so important. But—we could go on and give a long list of smaller jobs where our crushers are the ONLY ones used.

**POWER AND MINING  
MACHINERY COMPANY**

Cudahy [Suburb of Milwaukee,] Wis., U. S. A.

District Offices: New York, Chicago, El Paso, San Francisco,  
Atlanta,

M261.2



Tell 'em you saw it in ROCK PRODUCTS



**TIE** Your  
Cement Sacks

WITH THE

**UNITED  
WIRE TIE**

(PATENTED)

IT IS

**BEST—CHEAPEST—QUICKEST**

Also Wire Ties for  
Binding Reinforcing Rods

PRICES AND TERMS GLADLY QUOTED UPON REQUEST

**THE UNITED WIRE TIE COMPANY**

1348 Nicholas Building

TOLEDO, OHIO

## Can You Haul Stone

FOR 5c PER TON PER MILE?

Prinz & Carlson of Winona, Minnesota, own the train of TROY Reversibles shown in the picture. They are hauling crushed stone at a cost of five cents (5c) per ton per mile. Think of it.

*A nickel per ton per mile*

Their Hauling Costs Them Less Than One-sixth What it Did With Teams

*How about your own record? What does it cost you with teams? Suppose you cut your cost to one-sixth or even one-half? You owe it to yourself to get Road-Building Book PR  
—NOW—*



**The Troy Wagon Works Co.**

101 East Race St.

TROY, OHIO

## “NESTOR”

**SOLID WOVEN  
WATER PROOF  
BELTING**

**BUILT ESPECIALLY  
FOR**

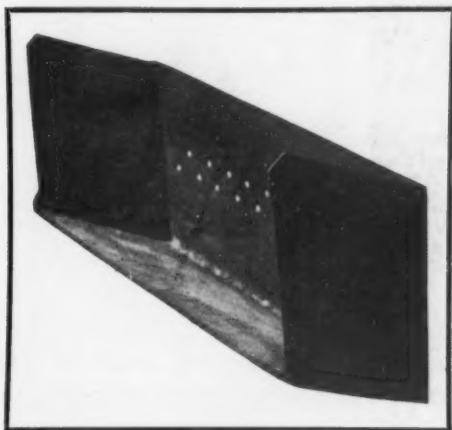
**Sand and Gravel Plants**

Write for Catalog Just Off the Press  
Kindly Mention This Paper

**THE AMERICAN FABRIC BELTING CO.**  
CLEVELAND, OHIO

Tell 'em you saw it in ROCK PRODUCTS





Our elevator buckets and perforated steel screens have been going all over the United States for many years, and if you haven't tried them, a good time to start is right now.

Let us quote price on your next order.

**Hendrick Mfg. Co.**  
Carbondale, Pa.

NEW YORK OFFICE

30 Church Street

## Contractors Machinery & Supply Company

NEW AND REBUILT MACHINERY

A Complete Line of Stone  
Quarry Equipment

Send for Our Booklet of  
Rebuilt Machinery

Agents for National Hoist-  
ing Engines, Sidney Steel  
Scraper Co., Scrapers,  
Wheel Barrows,  
Grading Plows  
and Milwaukee  
Concrete  
Mixers

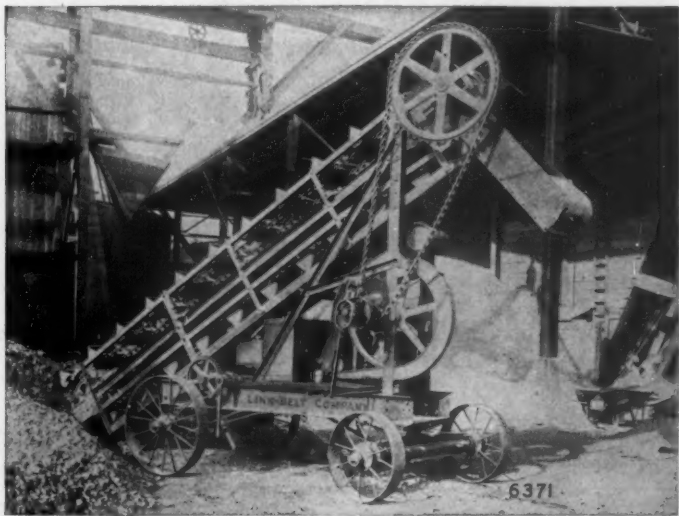
**Hoisting Engines**  
**Steam Shovels**  
**Concrete Mixers**  
**Air Compressors**  
**Boilers**  
**Engines**  
**Dump Buckets**  
**Locomotives**  
**Pumps, Rails**  
**Dump Carts**  
**Derricks**  
**Crushers**

Steuben and Carson Sts., West End, Pittsburgh, Pa.

# THE LINK-BELT STONE DIGGER

For Stone, Sand, Gravel, Coal, Ashes, Ore, etc.

The quickest and cheapest method of loading material from ground storage to wagons or cars



The Link-Belt Portable Stone Digger, Crandall Company, Brooklyn, N. Y.

### *This Link-Belt Portable Digger*

has revolutionized the method of loading—it has proved that hand-shoveling is the most expensive way to load materials, because it:—

1. Handles 35 tons of stone an hour.
2. Does the work of 10 men.
3. Requires but one man for operation.
4. May be moved about readily.
5. Is Operated by Motor or Engine.
6. Has long list of satisfied users.

The Machine illustrated is in daily operation at the yards of the Crandall Co., Brooklyn, N. Y., handling crushed stone and broken macadam.

Correspondence Solicited—We invite a thorough investigation  
Catalog on request—State material to be handled

**LINK-BELT COMPANY, Philadelphia, Chicago, Indianapolis**

New York.....299 Broadway	Buffalo.....506 Elliott Square	Seattle.....512 1/2 First Avenue S	Los Angeles.....H. H. Clark, Security Bldg.
Boston.....131 State Street	Birmingham.....General Machy Co.	Denver.....Lindrooth, Shubart & Co.	Minneapolis.....Link-Belt Supply Co.
Pittsburgh.....1501-3 Park Building	Cleveland.....1204 Rockefeller Building	San Francisco.....N. D. Phelps, Sheldon Bldg.	Brantford, Canada.....Waterous Engine Wks.
St. Louis.....Central National Bank Building	Wilkes-Barre, Pa.....2nd National Bank Building	New Orleans.....Wilmot Machinery Co.	Montreal, Canada.....Williams & Wilson

Tell 'em you saw it in ROCK PRODUCTS

# = NIAGARA =

Wall Plasters Have Greater Covering Capacity, Work Smoother Under the Trowel and Have Greater Final Strength

**Niagara Neat Cement**

**Niagara Sanded Mortar**

**Niagara Wood Fiber (Wood Pulp)**

in 100-lb. Jute Sacks and 80-lb. Rope Paper Sacks. Mixed Car Loads of Wall Plasters, Hydrated Finishing Lime, Plaster Board, Land Plaster and Calcined Plaster for Finishing Purposes. These Products Mean Money to the Dealers in Builders' Supplies. Write today for prices.

## NIAGARA GYPSUM COMPANY

BUFFALO, NEW YORK

**Red, Brown, Buff and Black**



**MORTAR  
COLORS**

The Strongest and  
Most Economical  
in the Market.

Our Metallic Paints and Mortar Colors are unsurpassed in strength, fineness, and body, durability, covering power and permanency of color. Write for samples and quotations.

**CHATTANOOGA PAINT CO.**

Chattanooga, Tennessee



**YOU CAN'T FADE 'EM**

There's one "best" in every line, but that is not always best for everyone concerned. In the building trades

**Ricketson's Mineral  
COLORS**

are acknowledged to be the best choice for *everybody*. Best for the architect because purest. Best for the contractor because they go farther. Best for the owner because they never change their color.

For Mortar, Brick, Cement, Stone, Etc.  
Red, Brown, Buff, Purple and Black

**RICKETSON MINERAL PAINT WORKS      MILWAUKEE, WIS.**

**KING'S WINDSOR CEMENT  
FOR PLASTERING WALLS AND CEILINGS**

Buffalo Branch, CHAS. C. CALKINS, Manager  
322 W. Genessee Street.

Not the hardest, but the toughest and best Wall Plaster made—Can be applied with less labor. Has greater covering capacity than any other similar material

**J. B. KING & CO., 17 State Street, New York.**

**Our Classified Section  
Advertisements**

Are the Business Mart of the Industry

Advertisements cost  
25 cents a line for one  
insertion, 45 cents a  
line for two insertions  
and 60 cents a line  
for three insertions.

**TRY IT**

**ROCK PRODUCTS**

**537 S. Dearborn St., CHICAGO**

Tell 'em you saw it in ROCK PRODUCTS



## IMPORTANT Advertisers—Take Notice

### Changes of Copy

Must be in this office by the Thirteenth of the month, if proofs are desired, if no proofs are required the desired changes can be made if copy is received by noon of the Seventeenth.

### New Advertisements

To insure proper classification, should be in this office by the Fifteenth of the month, but they can be inserted in the last form going to press if received by the Nineteenth. The punctual publication of the paper admits no deviation from these rules. Advertisers are earnestly requested to co-operate with us.

**The Francis Publishing Company**  
537 South Dearborn Street, Chicago, Ill.

BETTER and CHEAPER than  
hair in HYDRATED LIME



**Superior Plastering Fiber**  
COTTONWOOD FIBER CO.  
ST. LOUIS

Cummer Continuous Process  
**CALCINING  
GYPSUM**

No  
Kettles  
Used

Plants  
in  
Operation

CUMMER DRYERS DRY EVERYTHING  
**The F. D. Cummer & Son Co.**  
CLEVELAND, OHIO

CROWING FOR



**PLYMOUTH PLASTER  
WOOD FIBER PLASTER  
PLYMOUTH FIREPROOF  
PARTITION BLOCKS  
PLASTER BOARD  
STEEL STUDDING**

THE QUALITY BRANDS

WRITE US FOR PRICES AND  
ADVERTISING MATTER

**Plymouth Gypsum Co.**  
Fort Dodge, Iowa



## It Keeps Best and Gives Longest Service

Here's a cement that improves with age—a cement that won't go *dead* no matter how long you keep it in stock. A cement that both protects *you* against loss and insures the owner against the frequent cost of repairs.

## Best Bros. Keene's Cement

By Countless Tests the Most  
Durable Plaster in Existence

Durability and subsequent *economy* are the two big selling points of this cement, which for 25 years has been recognized as the

**"Plaster that Stands  
Hard Knocks"**

Write today for further information.  
Free booklet gives all the facts.  
Write for it today.

**THE BEST BROS. KEENE'S CEMENT CO.**  
(Etab. 1889) Dept. A, MEDICINE LODGE, KAN.

NEW YORK OFFICE—The Fifth Avenue Building  
CHICAGO OFFICE—1st National Bank Building



(22)

Tell 'em you saw it in ROCK PRODUCTS



## WHAT IT MEANS TO YOU

**Low Charging means more output.**

The low charging platform is only about 2 feet high and attached to the mixer.  
**The Semi Automatic Discharge means less labor.**

This discharge is the simplest, quickest, and easiest operated on the market.

**The Open Drum means uniform high grade concrete.**

Allows the entire batch to be seen while mixing.

**Low First Cost and Low Operating Cost means more profit.**

Built mounted on two or four wheels with either side or rear discharge and adapted to all classes of work, as it will mix concrete, cement mortar, plaster, Westrumite, Tar Asphalt, Tarvia, etc.

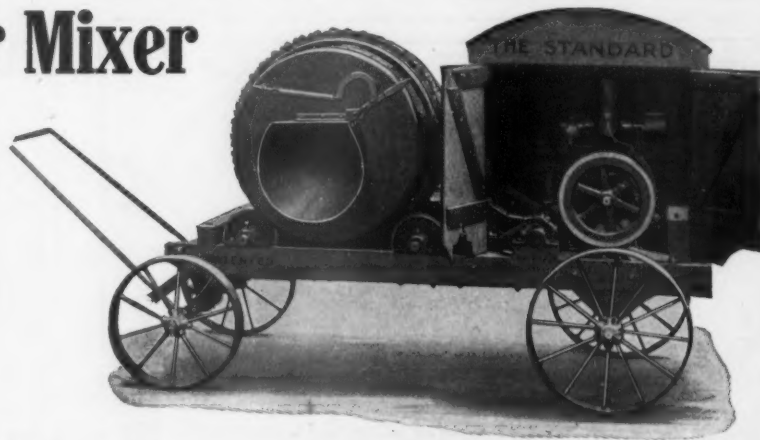
## "The Standard" Junior Mixer

Can be placed anywhere on the job and can be moved very easily by one man. "The Standard" Junior is especially adapted to your class of work and will pay for itself in one or two weeks. Every day that you are without "The Standard" Junior you are losing money. You have lost hundreds of dollars already. Write for a new catalogue No. 33-J and prices.

### The Standard Scale and Supply Company

CHICAGO  
1345-1347 Wabash Ave.  
PITTSBURGH  
243-245 Water Street

NEW YORK  
136 West Broadway  
PHILADELPHIA  
35 South Fourth Street



CAPACITY PER BATCH, 3 CUBIC FEET



35 CUBIC YARDS DAILY

## 89 Sold at Chicago Cement Show

A REAL BATCH MIXER

The simplicity of the friction drive is the one big feature of the "SEXTON JR" the rollers being flanged travel the machined surfaces of the trackers, which are themselves a part of the drum and also a method of binding the heads and wearing surface together. The friction drive is not only POSITIVE but means ECONOMY OF OPERATION.

### With Power The Sexton Junior Batch Mixer With Trucks

\$100.00 COMPLETE

WRITE FOR BOOKLET "Y"

SEXTON, Inc.

MILWAUKEE,

WISCONSIN

"THE SENSATION IN MIXERS"



## SHEARER & MAYER

### Drag Line Cable Way Excavator

(Patented)

Designed for digging and conveying material from under water or from a dry pit.

**MODERATE FIRST COST, LOW COST OF MAINTENANCE  
LARGE AREA OF OPERATION, SIMPLICITY OF OPERATION**

are some of the advantages this machine has to offer. It will pay you to investigate this Excavator before installing any machinery for stripping or digging or for conveying the material from pit to plant. Write us your conditions and requirements, and we will advise you of the adaptability of this machine to your work.

**SAUERMAN BROS., 1139-40 Monadnock Block, CHICAGO, ILL.**

ENGINEERS AND DEALERS IN WIRE ROPE, AERIAL  
TRAMWAYS, CABLEWAYS AND WIRE ROPE APPLIANCES.

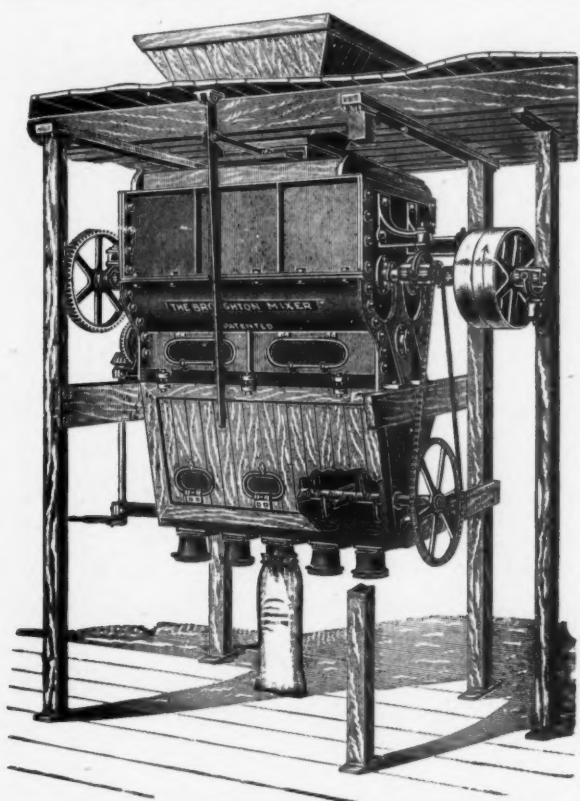
Tell 'em you saw it in ROCK PRODUCTS







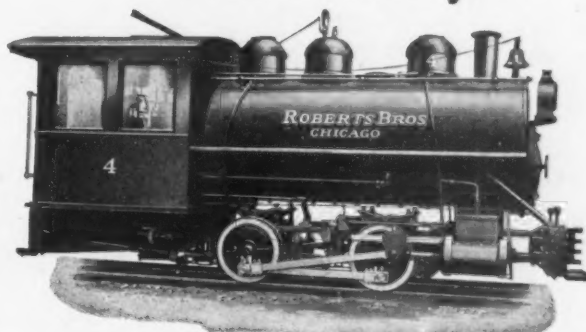




The most thorough and efficient  
Mixers of Plaster, Cement and  
Dry Materials. Send for Circular.

**W. D. DUNNING, Water St., Syracuse, N. Y.**

Do You Have Cars to Haul?  
**The Davenport Locomotive**  
Will Save Money



Special Designs for Special Purposes  
Any Size, Any Gauge, Any Weight  
Write for Prices and Particulars

**DAVENPORT LOCOMOTIVE WORKS**

**DAVENPORT, IOWA**

BRANCH OFFICES:

Chicago, 12 and 14 So. Canal St.

Seattle, 617 Western Ave.

St. Louis, 654 Peirce Bldg.

New York, 30 Church St.

St. Paul, 1308 Pioneer-Press Bldg.

Cincinnati, O., 703 1st Nat. Bank Bldg

Canadian Representatives:

F. H. Hopkins & Co., Montreal, Que.,

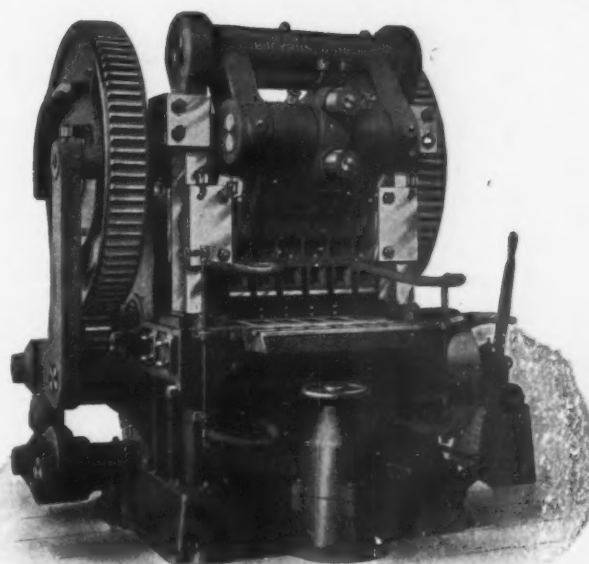
Dominion Equipment & Supply Co., Winnipeg, Man., Edmonton, Alta.

# Sand-Lime Brick Machinery

**O**UR Sand -Lime Brick Machinery is at least a little better than any other. We have testimonials to show it. We built it all in our own factory and are sure of its quality. We are the only firm doing this. We will design and equip your entire plant or will sell you parts of your equipment. Our catalog describing and illustrating our full line will be sent upon request.

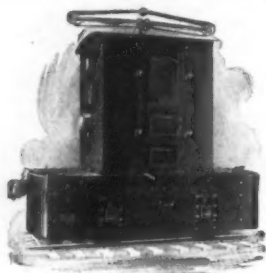
We also build a full line of machinery and appliances for making Clay Products, Cement and Pottery, Dryers and Dryer Apparatus.

Everything we sell we make. We therefore know its quality to be right.



**THE AMERICAN CLAY MACHINERY CO.**  
WILLOUGHBY, OHIO, U. S. A.

Tell 'em you saw it in ROCK PRODUCTS



No. 6550  
Electric Industrial Locomotive

## THE ATLAS CAR & MFG. CO.

CLEVELAND, OHIO

MANUFACTURERS OF CARS FOR  
QUARRIES, CEMENT WORKS, AND GENERAL  
USES. ELECTRIC CARS AND LOCOMOTIVES,  
TURNABLES, SWITCHES, FROGS.



No. 274  
End Dump Quarry Car



No. 805  
Dumping Stone Carrier.

SHAM-ROCK



ATTENTION

Cement and  
Building  
Material Dealers

SHAM-ROCK



Sales Agents wanted for McCormick Shamrock  
Brand Waterproof Compound.

Recognized over the country as the standard  
Waterproofing.

Specified by all the leading Architects and En-  
gineers and used by all competent Contractors.

Make and sell waterproof cement yourself reliev-  
ing the contractor of any additional trouble with  
mixing.

Write for full information.

CHICAGO OFFICE

McCormick

Waterproof Portland

SHAM-ROCK Cement Co. SHAM-ROCK

Manufacturers



1112 Chamber of  
Commerce Bldg.

CHICAGO, ILLINOIS



## Did you ever stop to consider

that the reason we are the largest cement company in the world  
is because more cement users insist on getting Atlas than any  
other brand? They do it for the same reason that there are over  
five million barrels of Atlas going into the Panama Canal, and  
seven hundred thousand barrels in the Keokuk Dam. Isn't that—

### the cement you want?

There are twenty years of successful manufacturing  
packed into every bag of Atlas—twenty years of know-  
ing how to make a cement with the leading reputation.

"The standard by which all other makes are measured."



THE ATLAS PORTLAND CEMENT CO.

30 BROAD ST. NEW YORK

Marine Bldg Philadelphia, Pa. Corn Exch. Bank Bldg Chicago, Ill.

The standard by which all  
other makes are measured



Productive capacity over  
50,000 barrels per day



Tell 'em you saw it in ROCK PRODUCTS